The Architect's Newspaper

July/August 2019 | www.archpaper.com | @archpaper | $3.95

SO – IL's CDMX housing page 11



Stanley Tigerman (1930–2019) page 14

In Detail: Brant Foundation page 20



DS+R's impact on New York page 18

Virgil Abloh at MCA Chicago page 62

6 ICYMI
9 Eavesdrop
61 Highlights
64 Marketplace

Glass Special Section

See page 28.

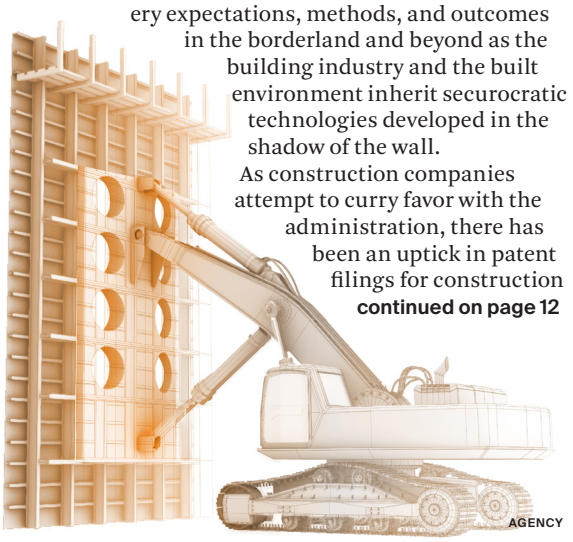


COURTESY JEWEL CHANGI AIRPORT

Patently Immoral

Products of border wall research may expand to the rest of the construction industry.

Over ten days this past spring, a privately funded group named We Build the Wall hurriedly constructed a segment of the proposed United States–Mexico border wall in Sunland Park, New Mexico. The rapid erection of this so-called "gift to America" shocked nearby communities, and the project served as a startling proof of concept for emerging wall construction technologies. Developed under the auspices of the Trump administration's border wall request for proposals, these are the products of a technological arms race to improve the speed and efficiency in which national security infrastructure can be delivered. The segment is the first product of what will surely become a growing list of building technologies developed as part of the xenophobic border wall project. These technologies will shape project delivery expectations, methods, and outcomes in the borderland and beyond as the building industry and the built environment inherit securocratic technologies developed in the shadow of the wall.



AGENCY

As construction companies attempt to curry favor with the administration, there has been an uptick in patent filings for construction

continued on page 12

Peak Biennial?

The global design circuit comes to a head this fall.



COURTESY SHARJAH ARCHITECTURE TRIENNIAL, 2019

"syzygy *noun* syz·y·gy | \ ˈsi-zə-jē: the nearly straight-line configuration of three celestial bodies (such as the sun, moon, and earth during a solar or lunar eclipse) in a gravitational system."
—*Merriam-Webster*

It seems like somehow all the world's design triennials and biennials have lined up to happen in the fall of 2019. September is especially packed with

continued on page 10

The Turk's Inn

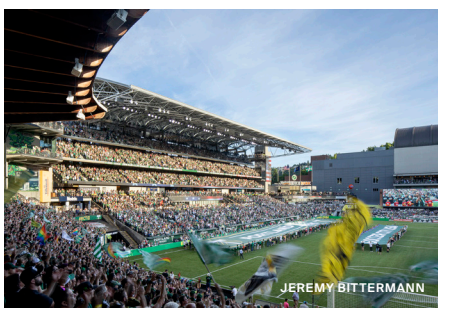
The Turk's Inn graces Brooklyn with a jazzy '70s supper club straight from Wisconsin. See page 16.



JEFF BROWN

Soccer City, USA

Allied Works designs a stadium for the Portland Timbers.



JEREMY BITTERMANN

Portland, Oregon, has dubbed itself "Soccer City, USA" and cultivated an ardent fan base for its two professional teams, the Timbers and the Thorns. Allied Works' founding principal Brad Cloepfil is among those fans and has watched various iterations of the Timbers play since the mid-1970s. When he heard that the teams' owners were investigating adding seats to Providence Park, their historic stadium, Cloepfil volunteered his firm to do a study.

What followed was an exploration of how to design a stadium expansion in a tight urban space hemmed in by roads, utilities, buildings, and a light-rail line. Where previous expansion studies had looked at the south side of the stadium, Allied Works focused on the east side and upward expansion. The architects found a precedent in the raucous Estadio Alberto J. Armando in Buenos Aires, Argentina, known as La Bombonera, where steep stands form a "U" around three sides of the pitch with a fourth flat side—similar to the configuration of Providence Park. Not being traditional stadium architects, the firm found another successful example of going vertical in London's Globe Theatre, a venue whose stacked levels of outdoor seating manage to bring audiences close to the action below.

From the outset, the project's signature gesture was an arched canopy that sweeps from the edge of the existing seating on the lower level over three

continued on page 15

DEVELOPER NATION
Read on page 22.



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California Doomers

How is California dealing with its disappearing coast?



The Amtrak Pacific Surfliner in San Clemente, California, on it's way to San Diego.

The questions raised by global warming, climate change, sea-level rise, and the resulting migration crisis are not to be taken lightly. They offer us myriad dramas in the form of disappearing cities, changing neighborhoods, dwindling resources, and existential anxiety about living near water. The *Los Angeles Times* recently took on some of these tough questions in a special report titled "California Against the Sea."

Illustrated with sweeping photography (not shown here) of the state's Pacific shore, the extensive feature examines the disappearing California coast, potential fixes, and the consequences those fixes might bring. As much as two-thirds of the beaches in California could be gone by the end of the century. In California alone, it is estimated that $150 billion in property could be at risk of flooding.

Several points became clear from reading the *LA Times* reporting, done by Rosanna Xia. One is that the problems created when parts of the coast become uninhabitable are not easily solved by design or technology. Physical interventions, like seawalls—which can cost up to $200,000 per house—often make the problem worse; short-term solutions, like adding sand to beaches, are expensive—and there is only so much sand in the world. Environmentalists and many others favor "managed retreat," or carefully and systematically moving away from the coast, but this option faces deep resistance from some landowners.

The report shows that the crisis is a real estate drama above all else. Entrenched interests are often opposed to solutions to environmental issues if those solutions threaten people's property. Especially in California, a strong tradition of homeownership is at odds with what many consider sensible public management of the coastline.

These conflicts are already playing out at a small scale. In Pacifica, a small city just south of San Francisco, the beach is already eroding, despite efforts begun in the 1970s to install seawalls, piles of rocks, and special concrete to preserve the shoreline. Although some homes have already been removed from the coast, not all residents are willing to accept managed retreat.

"'Managed retreat' is code word for give up—on our homes and the town itself," Mark Stechbart, who is concerned about the future value of his Pacifica home, told the *Times*. "This is not just some intellectual exercise. These are real people and a real town at stake."

"The public has rights to the beach, but I apparently don't have rights to my house," Suzanne Drake, another homeowner said in the report. "I'm a left-of-left Democrat, but these environmental zealots are next level."

It is fairly scary to think about how these issues will play out if the scale and seriousness of the crisis grow. According to the *Times*, in the last 100 years, sea levels rose 9 inches along the California coast, but are expected to go up by as much as 9 feet by the year 2100. If a town like Pacifica is experiencing this kind of disagreement and controversy when a handful of houses are involved, how will a city like Miami deal with entire neighborhoods negotiating how to relocate (or not)? Each person has their own beliefs and personal fortune at stake. This is unfortunately already happening in Florida, Louisiana, and North Carolina, among other places.

There are no straightforward design solutions. Lessons from the past say that human intervention can actually make things worse—not to mention that safeguarding the whole state of California would require upward of $22 billion, according to the *Times*.

A simulated game in the special report has three outcomes: loss of beaches due to seawall construction; cost overruns; and success, by way of managed retreat and careful diplomacy that requires negotiating with individual homeowners.

There are problems with the latter solution. Buyout programs have proven successful elsewhere, but not in places with coastal California market prices. Staten Island's post–Hurricane Sandy program bought 300 homes for $120 million, which would buy about ten houses in Malibu.

These are massive problems that are only going to get bigger. Can design do anything to help? Or if it is a question of real estate, can the markets be managed without tearing communities apart? If California is any indication, both of these possibilities appear unlikely. **Matt Shaw**

Correction

In the Eavesdrop in the May 2019 issue, Gensler was incorrectly referred to as the current architect of the Horton Plaza redevelopment project in San Diego. Gensler has not been involved in this project in over a year.

Masthead

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Vol. 17, Issue 6 | July/August 2019

The Architect's Newspaper (ISSN 1552-8081) is published 12 times a year (monthly) by The Architect's Newspaper, LLC, 21 Murray St., 5th Fl., New York, NY 10007.

Presort-standard postage paid in New York, NY. Postmaster, send address change to: 21 Murray St., 5th Fl., New York, NY 10007.

For subscriber service: Call 212-966-0630 or fax 212-966-0633.

$3.95 a copy, $39.00/year; International $160.00/year; Institutional $149.00/year

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6 In Case You Missed It...

We corralled the top architecture and design stories buzzing about the internet this month.

SelgasCano brings its 2015 Serpentine Pavilion to Los Angeles

Second Home, a London-based workspace company, is designing a Los Angeles outpost with longtime architectural partner SelgasCano. The branch is set to open in September and will compete with other big names like Soho House and WeWork, but Second Home has something the others don't: SelgasCano's 2015 Serpentine Pavilion, which will be used as an events space.


COURTESY SELGASCANO

Federal judge rejects Obama Presidential Center lawsuit as opponents vow to fight on

Four months after a district judge ruled that a lawsuit against the potential Barack Obama Presidential Center in Chicago would be allowed to proceed—stalling the center's construction until its conclusion—a federal judge tossed out the case on June 11. While this wasn't the ruling that plaintiffs were hoping for, they have vowed to appeal.

MIT and Maldivian researchers mimic nature to save sinking land

Researchers at MIT's Self-Assembly Lab, in collaboration with Invena, a Maldivian organization, have proposed a solution to rising sea levels, inspired by nature. Called Growing Islands, their project uses wave energy to grow sand formations in a way that mimics natural sand accumulation; the hope being that over time, sand can "grow" into new islands, beaches, and barriers.

Sidewalk Labs unveils Toronto waterfront timber-topia

The public got its first look at Sidewalk Labs' proposed new neighborhoods when the company released a full run-through of its finalized plans. Unlike New York's super-sleek Hudson Yards, a comparable megadevelopment, there will be a forest's worth of wooden buildings in this ground-up neighborhood project.

Chicago overhauls building codes

On April 10, the Chicago City Council approved an overhaul to the Chicago Building Code, the first update since 1949. This announcement has invigorated the local design, construction, and real estate industries as it has brought the local building code up to national standards and promises greater affordability, sustainability, and innovation in the city.

Arquitectonica's second finished building gets torn down

Arquitectonica's second completed project, the multifamily Babylon apartment block in Miami, has been demolished. The building's owner, former spaghetti-western star Francisco Martínez Celeiro, wants to replace the 37-year-old postmodern Babylon at 240 SE 14th Street with a 24-story condo tower, a far cry from the existing five-story structure.

DesignAgency to retrofit L.A.'s historic Bradbury Building for co-working

NeueHouse, the private co-working space company in Hollywood, has announced its addition to the iconic Bradbury Building in downtown Los Angeles. Arriving this November, the up-and-coming company will cement its place in the history of businesses that have occupied the 126-year-old property. Local firm DesignAgency will be handling the interior conversion.

OMA reveals renderings of New Museum expansion

OMA has revealed its design for the New Museum addition, a chunky 62,000-square-foot gallery expansion that leans on the contemporary art museum's current home on the Bowery in New York City. The seven-story building will replace an older loft that was home to the museum's incubator, NEW INC, and to artists who had lived and worked in the building.


OMA AND BLOOM/IMAGE VIA NEW MUSEUM

John Ronan to design Frank Lloyd Wright Trust's new visitor center

Chicago-based John Ronan Architects has won a competition to design the Frank Lloyd Wright Trust's new Visitor and Education Center in Oak Park, Illinois. The new center will become the main entrance to Frank Lloyd Wright's former home and studio, one of five sites the trust maintains in Chicago.

Is Elon Musk's O'Hare Express System dead?

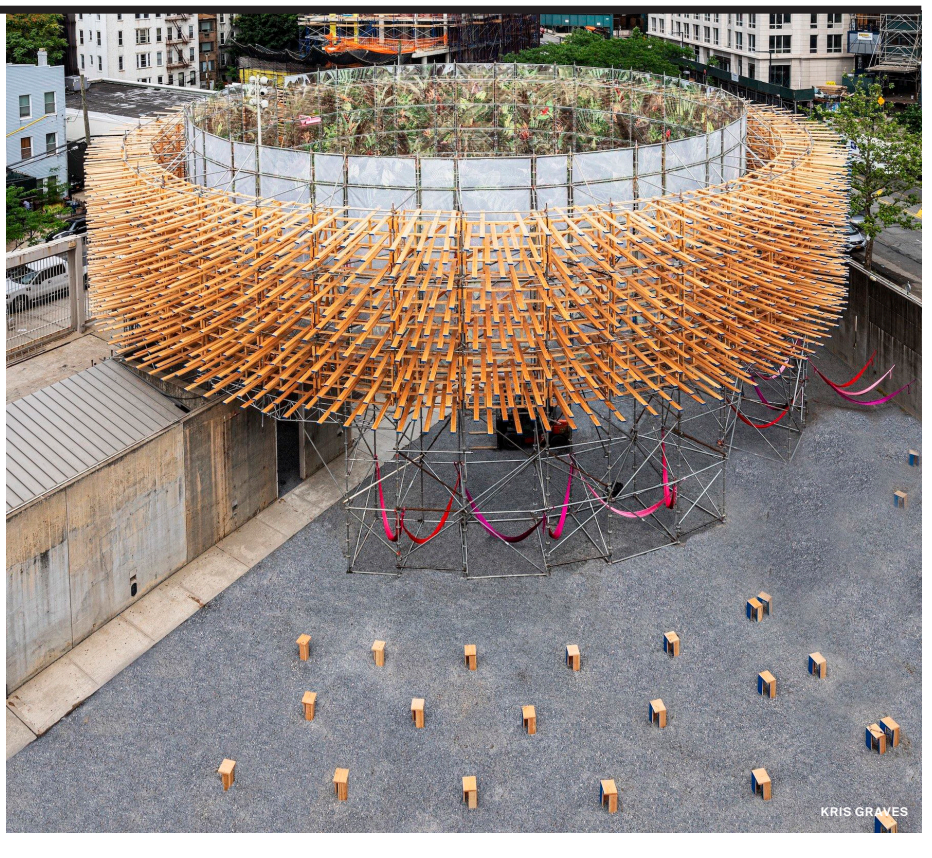
Fears that Chicago's new mayor, Lori Lightfoot, would quash Elon Musk's $1 billion plan for an underground shuttle between the Loop and O'Hare International Airport arose around the February 26 election to replace Rahm Emanuel, and now the federal government is demanding Chicago pay back the money used to build one of the loop's potential stations.

7 In Case You Missed It...

For more information and images for all of these stories, visit archpaper.com/ICYMI

MoMA PS1's 2019 Young Architects Program celebrates 20 years

The Mexico City–based firm Pedro y Juana, has installed a 40-foot-tall ring of scaffolding in the Long Island City museum's front plaza, complete with a tropical panorama and towering waterfall. Dubbed Hórama Rama, the installation floats this "jungle" over a forest of scaffolding, with handwoven hammocks from the south of Mexico suspended between the columns.


KRIS GRAVES

Eight Frank Lloyd Wright buildings are now UNESCO World Heritage Sites

Eight Frank Lloyd Wright–designed buildings have been added to the UNESCO World Heritage List. The major works, including New York City's Guggenheim Museum and Los Angeles's Hollyhock House, span 50 years of Wright's career and are the first examples of U.S. modern architecture to be added to the prestigious list.

Construction begins on massive Machu Picchu airport despite protests

Ground has been broken on a $5 billion airport meant to connect Peru's mountainous Machu Picchu with the outside world, but opponents of the airport claim that the project's environmental ramifications and resulting influx of tourists would be huge, and that runoff from the construction would pollute the nearby Lake Piuray.

Three big-name studios shortlisted for La Brea Tar Pits master plan competition

The Natural History Museum of Los Angeles County (NHMLAC) announced June 6 that it would be reimagining its 12-acre campus in Hancock Park in Los Angeles, home to the iconic La Brea Tar Pits and George C. Page Museum. The shortlist to lead the project includes Dorte Mandrup, Weiss/Manfredi, and Diller Scofidio + Renfro.

Heavy hitters of U.K. architecture declare a "climate emergency"

A group of 17 architecture firms from across the United Kingdom—including Foster + Partners, Zaha Hadid Architects, David Chipperfield Architects, Rogers Stirk Harbour + Partners—released an open letter affirming their commitment to heading off climate change and building a more equitable future for their profession.

Deborah Marton named Van Alen Institute's new executive director

After former executive director of the New York nonprofit Van Alen Institute, David van der Leer, announced that he was stepping down in October of last year, the hunt to find a replacement leader for the 125-year-old institution was on. Now, Deborah Marton, currently the executive director of the nonprofit New York Restoration Project, has been tapped to lead Van Alen.

Vishaan Chakrabarti named dean of UC Berkeley's College of Environmental Design

Chakrabarti announced that he will be the next dean of UC Berkeley's College of Environmental Design starting in July of 2020. He is founding an outpost of his PAU practice in California and leaving the New York office in the hands of Ruchika Modi, the office's associate partner and studio director.

Mexico City's new Diablos Rojos Stadium mixes tradition with technology

Alfredo Harp Helú, owner of the Diablos Rojos professional Mexican baseball team, tapped Chicago-based FGP Atelier to design a new stadium that was at once striking and culturally and contextually appropriate. The resultant 11,500-seat building has a dramatic cantilevering PTFE roof shaped like a devil's pitchfork.

Junya Ishigami reveals completed Serpentine Pavilion

Junya Ishigami's 2019 sinuous stone Serpentine Pavilion is now complete and open to the public on the grounds of the Serpentine Gallery in east London. Ishigami worked closely with AECOM to design a lightweight, open-ended structure that floats a canopy of slate tiles above an occupiable void.


IWAN BAAN

Beleaguered Transbay Transit Center reopens

Nine months after cracks were discovered in two structural steel beams of the Pelli Clarke Pelli Architects–designed Transbay Transit Center in San Francisco, the hub reopened on July 1. However, buses won't roll through the $2.2 billion terminal until the end of the summer; at first, only the 5.4-acre rooftop park will be reopened.

8 Open

West

Cayton Children's Museum



The 21,000-square-foot Cayton Children's Museum is a new multilevel experience curated to engage children with the physical world. OFFICEUNTITLED, a Culver City, California–based firm, has designed a space for children to explore unhindered, as the nets, colorful palette, costume lockers, full-size helicopter and firetruck, and even a wall covered in pool noodles are all intended to spur tactile interaction without requiring constant adult supervision.

The museum is on the third floor of the open-air Santa Monica Place mall and provides a welcome respite for parents and children alike. However, if visitors walk past the enormous aardvark carved from plywood that houses the reception desk, they'll find the "Cloud Climber," an entire level made from nets, which only children can access. Other architecturally scaled objects house the museum's various programmatic elements.

The museum is open from 10:00 a.m. through 7:00 p.m. Monday through Saturday, and noon to 7:00 p.m. on Sunday. Admission is $14, but the museum will be free for low-income families during the first year. **Jonathan Hilburg**

395 Santa Monica Place, Suite 374 Santa Monica, CA	424-416-8320
Architect:	OFFICEUNTITLED

East

Essex Market



While food halls are The Thing developers build nowadays to lure Instagram-hungry foodies, an O.G. grocery and snack palace quietly thrived for almost 80 years on Manhattan's Lower East Side. The city-owned Essex Street Market, home to dozens of vendors, was a delightful institution where you could buy whole branzini, munch on empanadas, and get a haircut without leaving the building. While vendors thrived, economic pressures compelled the city to move the market from its old location.

As of May 2019, the relocated food palace has a shorter name and bigger digs. Designed by New York's SHoP Architects, the newly christened Essex Market's slanted, scalloped ceilings echo vaulted subway stations and shed warm light on shoppers who wander between the 37 stalls or hunker down to eat in the mezzanine. SHoP collaborated with Hi-Lume Corp., which packed GFRG into textured molds to form the ceiling's 3-D patterning. On the floor, ShoP worked with AGL Industries, Inc., a Queens-based steel company, on simple metal frames that vendors tailor to their concepts.

Essex Market is part of Essex Crossing, a 20-acre development, with nine buildings and a master plan executed by SHoP. A year from now, the market will link to The Market Line, a subterranean corridor of food purveyors. Get ready to eat up. **Audrey Wachs**

88 Essex Street New York	917-881-7096
Architect:	SHoP Architects

East

Apple Carnegie Library





With the recent opening of Apple Carnegie Library, tech giant Apple has restored a civic icon in the heart of the nation's capital to house its newest retail store. Foster + Partners led the $30 million, two-year renovation of the historic Carnegie Library, a 1903 Beaux Arts building in Washington, D.C.'s Mount Vernon Square.

The architects worked with the National Trust for Historic Preservation and others to restore the structure top to bottom with an emphasis on reintroducing natural ventilation and bringing more daylight into the building. Circulation tweaks allow visitors to enter the retail space on both sides of the building's north–south axis, creating a route through the building. The central core, which Apple calls the Forum, is a sky-lit, double-height space that hosts Apple product workshops as well as artistic performances. Most notably, the design introduces a grand staircase that cascades out onto the street.

The new store aligns closely with Apple's rebranding of its retail spaces as "town squares" rather than stores. To meet its mission, Apple often locates its outposts in historic buildings and encourages the structures to be used for more than just phone and computer sales. Apple Carnegie is the 13th such location to try to deliver on that concept. **Sukjong Hong**

801 K Street NW Washington, D.C.	202-609-6400
Architect:	Foster + Partners

9 Eavesdrop

Peter Tigerman

From Blair Kamin's Twitter: "Eisenman on how to get a table at Gene+Georgetti's: He'd call ahead and say he was Stanley Tigerman. 'Upon arrival a quick 20 secured a corner table...I went so many times that after a while I didn't even need my alias. When I arrived they would say, 'Good evening, Mr. Tigerman.'"



PHOTO OF PETER EISENMAN COURTESY COLUMBIA GSAPP

Iconic or Ironic?

DOM Publishers, which advertises its products as "books made by architects," recently put out a guidebook to New York City that claims to be a "singular guide" to the Big Apple. The hook: Author Vladimir Belogolovsky details 100 of the "most original" structures built in N.Y.C. since 1999. The catch: He gives each building a nickname. It's unclear why this is needed and doubtful any of these will really catch on. Some of the bigger stretches include "Glass Cube" (the 5th Avenue Apple store), "Ziggurat" (One Vanderbilt), and "Watermark" (Pier 15). The stupidest one, however, is "Pine Cone" (Hudson Yards' Vessel). The irony is the Vessel actually did get a moniker, but not the one Vlad suggests—it is known to most as "The Shawarma."

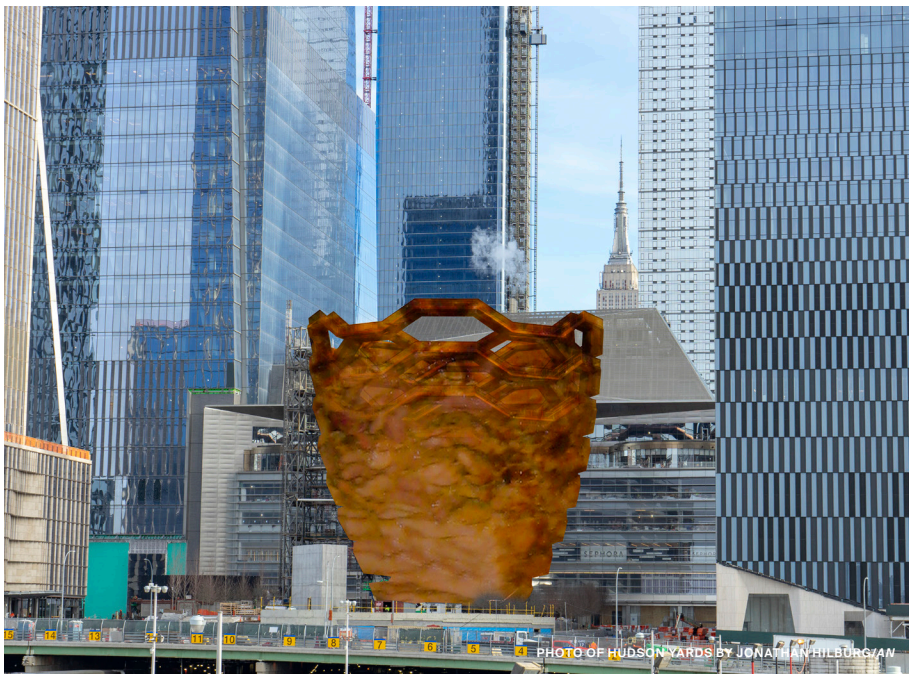


PHOTO OF HUDSON YARDS BY JONATHAN HILBURG/*AN*

Is Buc-ee There?

The other day, a mysterious person called the *AN* offices asking if this was Buc-ee's. We probably would have been completely confused, but we happen to know that Buc-ee is the name of an absurd Texas convenience store chain that boasts massive big-box buildings with sometimes more than one hundred gas pumps (and one location is home to the world's longest car wash). Why would someone call *AN* asking for Buc-ee's? Is it our resemblance to the brand's famous mascot, the Buc-ee's Beaver? Maybe, but it's more likely that someone got confused because of "The Beaver is Watching," one of our most popular articles from the Texas issue we did a year ago. You can find that online, and we highly recommend it.



LEONID FURMANSKY

Shoddy Shed

It has come to our attention that there has been a snafu at the Shed, the "new Fun Palace" designed by DS+R and Rockwell Group for New York's Hudson Yards. Heralded as a flexible platform for performance and arts of all kinds, the movable elements such as the translucent sheath and interior walls are what give life to the $485 million complex. However, recent reports indicate that there were some hurried details in the large gallery space, and the temporary partitions do not work. The floor grid does not align with the ceiling grid, making it impossible to install the partitions as originally designed.

Whoops! Shoddy construction? Budget cuts? Blame the architects?

Design For All Seasons

The *New York Post* wrote that insiders are blaming Brazilian architect Isay Weinfeld's interior design for the recent closure of the Manhattan Four Seasons Restaurant, which had just reopened after a $32 million renovation last August. Sources blamed the layout of the two private dining rooms on the restaurant's second floor, which featured "floor-to-ceiling columns that blocked views and built-in furniture that nobody liked." (Note to all architects: Avoid floor-to-ceiling columns from now on.)

Penn15 Club

Vornado Realty Trust recently released renderings for a speculative 1,400-foot tower meant to house Facebook's headquarters, designed by Rafael Viñoly. The tower, dubbed Penn15, plays on the history of Penn-themed names for local towers, like One and Two Penn Plaza. But the latest rendition comes with a viral twist: Penn15 sounds a lot like the old middle school PEN15 club that we were all invited to join at one point. While Penn15 might not come to fruition, as Facebook already secured space at One Madison Avenue in NoMad, we appreciate the sentiment. Jokers on Twitter asked if Penn15 had been erected yet and noted how fun it would be to tell your friends that you worked in the Penn15 building.

Send reservations and beaver nuggets to eavesdrop@archpaper.com.





The Al Jubail Vegetable Market will be one of the hosts for this year's event. The long property is a prime example of 1970s and '80s architecture in Sharjah and other nearby cities.

Peak Biennial? **continued from front page**
events for the global design cognoscenti, but the deluge will continue through the new year. Here is a breakdown of over 20 design-related celebrations from Chicago to Seoul to Uruguay.

Exhibit Columbus
August 24 to December 1
Columbus, IN

Inspired by the *1986 Good Design in the Community: Columbus, Indiana* National Building Museum exhibition, this year's edition of Exhibit Columbus will rethink what good design means today. Eighteen projects will activate downtown Columbus, including installations from the 2018–19 Miller Prize recipients, SO – IL, MASS Design Group, and Frida Escobedo Studio, among others.

Detroit Month of Design
September 2019
Detroit

The Detroit Design Festival is extending from a week to an entire month with programming from Design Core, the steward of Detroit's 2018 UNESCO City of Design program. Emerging local studios, educational institutions, and major companies will showcase projects and events throughout the city as well as installations from the festival's three main competitions.

Seoul Biennale of Architecture and Urbanism
September 7 to November 10, 2019
Seoul, South Korea

Sponsored by the Seoul city government, this year's biennial, themed "Collective City," invites a global discussion on how architecture practices can help change the political paradigms of development and influence policy ideas. Along with directors Francisco Sanin and Lim Jaeyong, curator Beth Hughes will organize the main exhibition, which will showcase new models of collaboration, governing, and research.

Estonia: Tallinn Architecture Biennale (TAB)
September 11 to November 30, 2019
Tallinn, Estonia

Focusing around the theme "Beauty Matters" TAB will look at new interests in aesthetics and how the concept of beauty is developing in architectural discourse and across cultures. Curated by Dr. Yael Resiner, the fifth edition of the biennial will feature nine exhibitors including Sou Fujimoto, Elena Manferdini, and Space Popular.

Istanbul Biennial
September 14 to November 10, 2019
Istanbul, Turkey

Organized by the Istanbul Foundation for Culture and Arts, the 15th edition of this citywide biennial will feature work from over 60 artists relating to the concept of the Anthropocene. Curated by French art scholar Nicolas Bourriaud, the exhibition will be held across three venues: the 600-year-old Istanbul Shipyard, the Pera Museum, and Buyukada Island. Participants will showcase pieces that detail the impact of human waste on other species and the environment.

Chicago Architecture Biennial (CAB)
September 19, 2019, to January 5, 2020
Chicago

Now in its third cycle, CAB will be curated by Yesomi Umolu, Sepake Angiama, and Paulo Tavares under the theme "...and other such stories." Through engaging the narratives of different cultures and their historical memories, the biennial will look at the importance of space, architecture, and nature in connection to the practices of building, designing, planning, policymaking, teaching, and activism.

Oslo Architecture Triennale (OAT)
September 26 to November 24, 2019
Oslo, Norway

The seventh edition of the Nordic region's biggest architecture festival will call attention to how architecture might respond to the current climate emergency and to social division in cities around the world. Titled "Enough: The Architecture of Degrowth," this year's OAT is curated by Maria Smith, Matthew Dalziel, Phineas Harper, and Cecilie Sachs Olsen, and will center on four concepts, or "institutions of growth": the library, the theater, the playground, and the academy.

Chile: Feria Libre de Arquitectura
October 3 to 27, 2019
Santiago, Chile

Having started in 1977, the Free Architecture Fair in Chile is one of the oldest biennials in the world, and this year, it will largely be held in Santiago. With a focus on "the common and the ordinary," participants will try to answer questions regarding the role of architectural production for people who don't live on the extreme edges of society.

Trienal de Arquitectura de Lisboa
October 3 to December 2, 2019
Lisbon, Portugal

The fifth edition of the Lisbon triennial will focus on the theme "The Poetics of Reason" and will be broken up into five exhibitions curated by various experts. Claiming that architecture "rests on reason," the showcase will break down the ways in which architecture is shareable and can be understood by anyone.

Lagos Biennial
October 26 to November 30, 2019
Lagos Island

Organized by the Àkéte Art Foundation, the second Lagos Biennial will ask: "How to Build a Lagoon with Just a Bottle of Wine?" Curated by Antawan I. Byrd and Tosin Oshinowo, the event will challenge artists, designers, and the public to think about how the city of Lagos, with its 21 million residents, can continue to expand its built environment while responding to climate change, socioeconomic inequality, and international exchanges.

Sharjah Architecture Triennial
November 9, 2019, to February 8, 2020
Sharjah, United Arab Emirates

Adrian Lahoud, dean of the School of Architecture at the Royal College of Art, London, will curate the inaugural run of this triennial around the theme of the "Rights of Future Generations." With major exhibitions held at the Al Qasimia University and the Sharjah Fruit and Vegetable Market, participants will rethink the role of architecture and how it addresses climate change across the Global South.

Shenzhen Bi-City Biennale of Urbanism/ Architecture (UABB)
December 2019 to March 2020
Shenzhen, China

The eighth edition of the UABB is co-hosted by Shenzhen and Hong Kong and is the only biennial dedicated to urban issues. This year's theme, "Urban Interactions," will be broken down into two sections, "Eyes of the City" and "Ascending City," and will be chiefly curated by Carlo Ratti, Meng Jianmin, and Fabio Cavalluci. The main exhibition will be held at the Futian Railway Station and will explore how technological advances can shape urban spaces.

Other Notable Events:

Experimental Architecture Biennale
June 14 to September 1, 2019
Prague, Czech Republic

Vienna Biennale for Change
June to October 2019
Vienna, Austria

Ottawa Architecture Week
September 30 to October 6, 2019
Ottawa, Canada

London Design Festival
September 14 to 22, 2019
London

Brazil: XII Bienal Internacional de Arquitecta de São Paulo
September 19 to December 19, 2019
São Paulo, Brazil

Spain: Bienal de Arquitectura Latinoamericana
September 24 to 27, 2019
Pamplona, Spain

International Biennale of Architecture Kraków
October 8 and 9, 2019
Kraków, Poland

Biennale d' Architecture d' Orléans #2 – Years of Solitude
October 11, 2019, to January 19, 2020
Orléans, France

Argentina: XVII Bienal Internacional de Arquitectura de Buenos Aires
October 15 to 26, 2019
Buenos Aires, Argentina

Dutch Design Week
October 19 to 27, 2019
Eindhoven, the Netherlands

Paraguay: XI Bienal Iberoamericana de Arquitectura y Urbanismo
October 2019
Asunción, Paraguay

Mexican SO – IL

The Brooklyn firm is building a social housing protoype in the heart of Mexico.



SO – IL and a local fabricator developed a special concrete brick that can be installed in multiple directions to create different wall patterns for each unit.

For many in Mexico, the phrase "social housing" conjures images of vast housing tracts falling into disrepair, abandoned by workers tired of two-hour commutes. While architects and planners look back to understand what went wrong in the country's early-2000s push to build affordable housing on city outskirts, authorities and designers are also looking ahead to explore alternative strategies.

The Municipal Housing Institute (IMUVI) of León, a city of 1.6 million people in the central state of Guanajuato, invited Brooklyn firm SO – IL to collaborate on the design of a new prototype for social housing in the city's center, and the team broke ground on the result, the Las Américas project, in May. Designed for low-income families, the building includes 56 apartments, most of which will be sold at far-below-market rates.

Guanajuato is traditionally known for its artisanal leatherworking, but more recently, rapid growth in the auto-manufacturing industry has transformed the region; León's population has doubled since the 1980s. Like many Mexican cities, it grew outward, with limited government planning. Some new arrivals built informal settlements on the city edges or, with access to credit, bought into exurban subdivisions. IMUVI faces two monumental tasks: regularizing the informal settlements, which requires extending utility services and other infrastructure, and building housing for those who still need it. According to Amador Rodríguez, director of IMUVI León, 45 percent of the city's residents don't have access to federal housing credit or traditional bank loans. Rodríguez estimates that the city needs another 80,000 housing units to meet the demand.

Instead of building more units on the outskirts, far from schools, jobs, and services, IMUVI has committed to densifying the city center. Working with SO – IL, IMUVI identified a lot in a downtown neighborhood to build Las Américas, a 62,431-square-foot complex of one-, two-, and three-bedroom apartments.

SO – IL's partnership with IMUVI began when Florian Idenburg, the firm's Dutch cofounder, was invited to Mexico to share his experience with the firm's New York City micro-housing project tiNY, lessons from which informed Las Américas.

"Affordability should not go against quality," said Idenburg. "And one of the qualities that is very important to us is light."

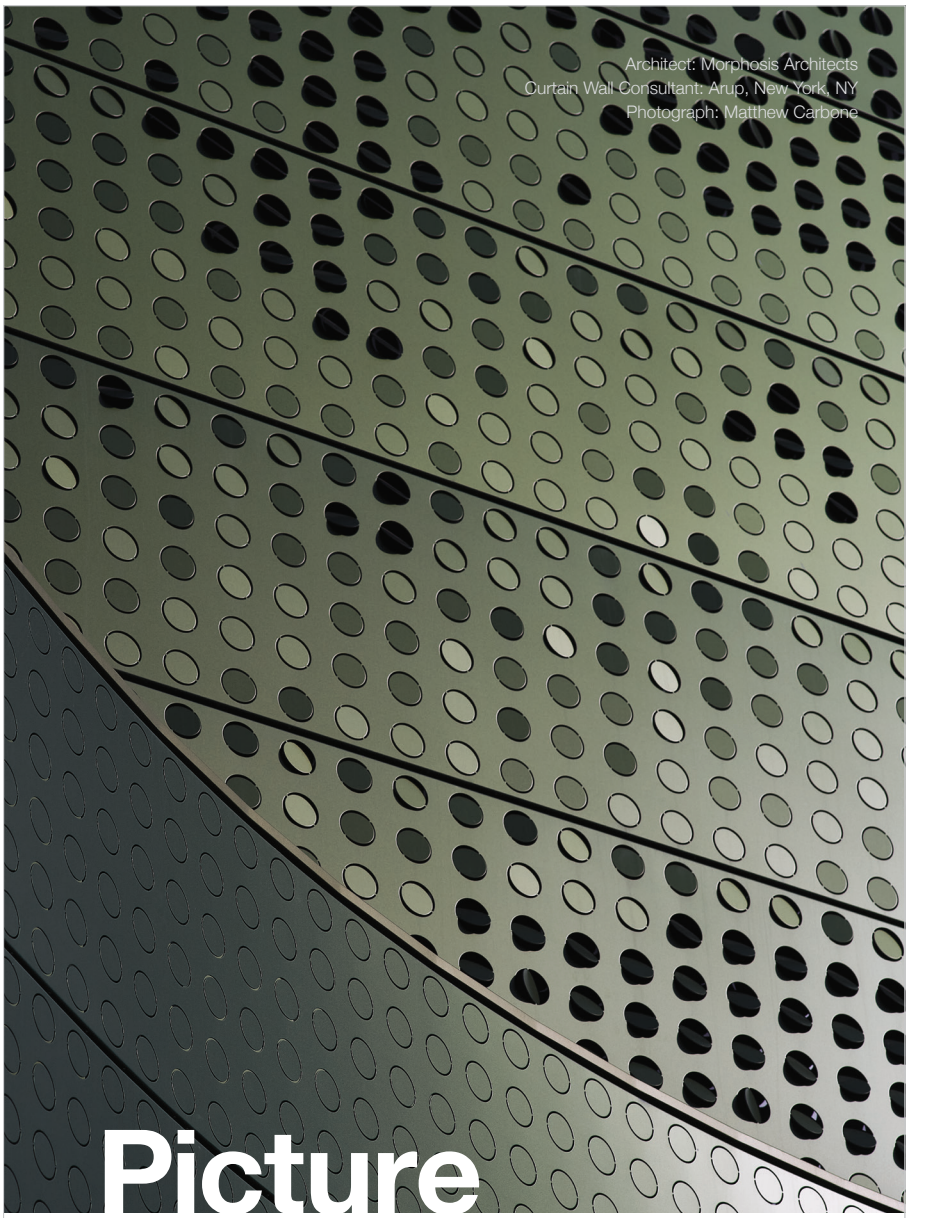
Thanks to single-loaded open-air corridors, the apartments in Las Américas receive natural light from at least two sides. No two units directly face each other, maintaining both density and privacy. The housing block wraps around two shared courtyards, while openings in the building's mass create additional, elevated common spaces. Exterior stairwells link each level. Idenburg said these features foster interaction between neighbors and a sense of community.

"It was very refreshing to work with this team in León," Idenburg said. Even with a limited budget, he said, there are opportunities for customization in Mexico that can lend character to what could otherwise be a uniform building. The team worked with local fabricators to develop a precast concrete brick that can be installed in different positions, creating a variety of wall textures for the apartments. "We made really nice custom windows that are hand-welded," he added. "You probably wouldn't be able to do that in the United States because of cost."

The design process included workshops and meetings in León to understand the needs of low-income families. SO – IL worked pro bono on the project. "It was a very productive collaboration," said Idenburg. "Everything was very collective."

While construction continues, IMUVI is identifying families to move into Las Américas. Out of a total of 56 apartments, 44 will be priced at just under half a million Mexican pesos (about $25,000), the legal limit for a social housing unit. The remaining 12 units will be available at market price to families with federal Infonavit (workers' housing) credit.

"I hope other people will see our project and think it is possible to achieve density and affordability in the city center," Idenburg said. Finding central but affordable lots is an ongoing challenge for agencies like IMUVI, but Idenburg hopes Las Américas can become a model for social housing in city centers and inspire projects in developing economies facing similar conditions. **Martha Pskowski**



Picture Perforated

The first academic building to open on Cornell Tech's Roosevelt Island campus, the **Emma and Georgina Bloomberg Center** aims for net-zero energy performance, a mission that drives its advanced aesthetics. Designed by **Morphosis**, its facade of pixelated perforated aluminum and curved glass provides both thermal protection and inspiration for a new generation of research. Read more about it in **Metals in Construction** online.

Ornamental Metal Institute of New York

WWW.OMINY.ORG



AGENCY

A patent application for a steel bollard fence design describes bollards connected by a continuous header, as in the Fisher design, and notes several features seemingly cribbed directly from the border wall RFP language and desired CBP operating requirements. The author specifies the intended use at "national border crossings," to prevent scaling with the use of ladders or grappling hooks, as well as the design's function to prevent breaches with common hand-held tools, and to prevent tunneling to a depth of 6 feet. The patent goes so far as to insist the design is "aesthetically pleasing."

Patently Immoral continued from front page

systems and project delivery methods explicitly tied to border wall construction. In 2018 alone, there were three such patents filed with the U.S. Patent and Trademark Office (USPTO), including designs for a border wall built of shipping containers, a "power-generating border wall," and a "multifunctional solar-powered barrier wall," which included financing instruments its inventors argued would allow the wall to pay for itself.

Fisher Sand & Gravel, the North Dakota company responsible for construction of the wall in Sunland Park, holds a patent (through its subsidiary, General Steel & Supply Company) for a proprietary "concrete forming system" designed to expedite border wall construction. Claiming the technique would allow completion of the entire border wall within six years and under budget, Fisher was one of six companies picked to build a wall prototype in Otay Mesa, California, after the Trump administration's RFP for border barriers in 2017.

Fisher's concrete-forming patent describes a novel process which capitalizes on modified construction equipment to rapidly form and cure extensive, continuous, cast-in-place concrete panels. At the core of the proposal are modified excavators adapted to traverse mountainous terrain equipped with "quick connect" arm couplers capable of positioning massive steel formwork. The excavators and steel forms, per the patent's argument, eliminate the need for numerous, labor-intensive ties and bracing that more typical concrete construction would require, while also eliminating the transportation costs and potential breakage associated with positioning individual precast panels.

The steel formwork can be rotated on three axes, controlling for pitch, yaw, and roll, allowing endless adjustments in "attitude, position, and/or orientation," in rugged borderland terrain. The flexible system allows operators to control the wall section of the barrier, facilitating wall designs of equal thickness, tapered "triangular-shaped" walls, or "any other orientation or configuration."

Patent drawings show a veritable army of excavators choreographed to position alternating sections of steel formwork with military discipline. As the wall is poured, the edges of completed freestanding sections are incorporated as formwork for infill panels, allowing a nonstop rhythm of pouring and curing along the line. In a self-assured video extolling the virtues of its method, Fisher boasts that its wall, covering the entirety of the land border with Mexico, will protect the U.S. for 150 years to come.

A Customs and Border Protection (CBP) test team evaluated the construction of Fisher's prototype in Otay Mesa and noted that—along with all concrete prototypes—the proposal would face "extensive" challenges in construction. Its concrete design having failed to procure the elusive border-wall contract, Fisher incorporated much of the same proprietary technology and delivery protocols in a modified steel design.

Videos online show Fisher's technique for construction of a steel bollard fence using a similar process to the one outlined in the concrete-forming patent. Workers first prepare a trench and position a fleet of modified excavators around the site. Instead of positioning metal formwork, the vehicles are outfitted with a custom trussed hanger spanning 56 feet on which workers hang prefabricated sections of bollard fence. The vehicles then position the long sections, drop them into the trench, level and align as necessary, and fix the bollards in a poured concrete foundation.

Unlike the concrete-forming method, which requires excavators to be positioned on both sides of the fence, the steel fence can be erected with machines working from one side only. During demonstrations, the company pointed out that the construction process would not breach the international boundary.

According to Fisher, the bollard-fence hanging system is "patent-pending," though no record of a new application from Fisher Industries or subsidiaries is yet available on the USPTO database. A remarkably similar design for a "bollard fence" was filed by Neusch Innovations in December 2018 and may be related.

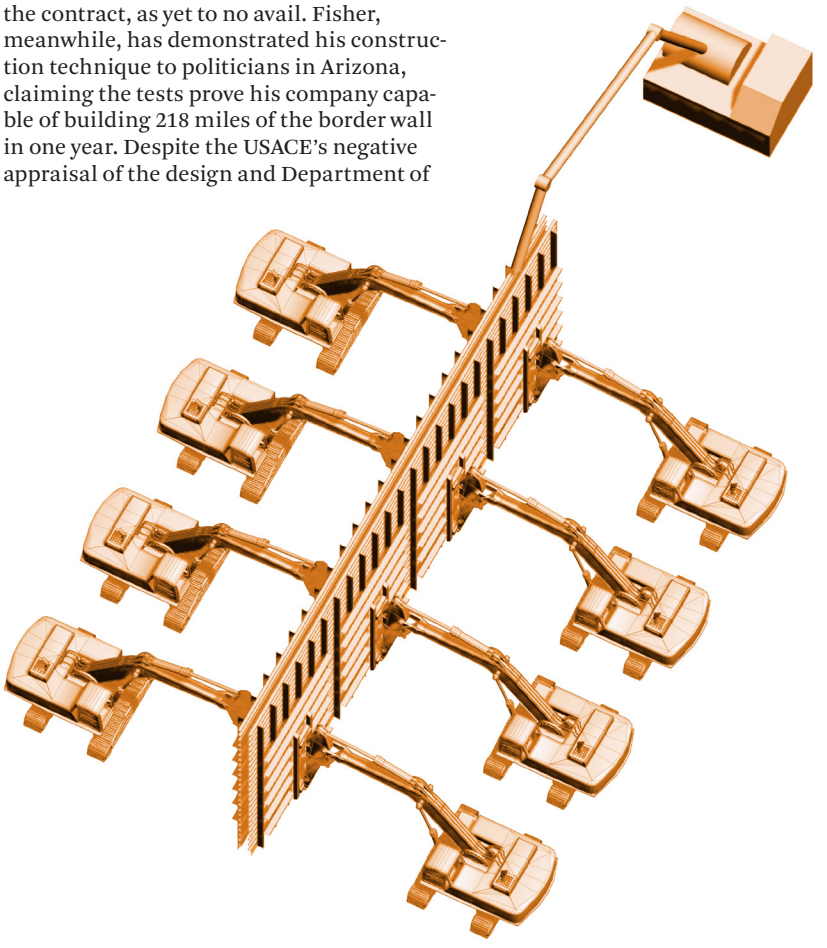
Company executive Tommy Fisher relentlessly promoted Fisher's steel design as a faster, cheaper, and better alternative to other techniques, a bold triad of claims given the realities of the construction industry. The Republican donor has aggressively targeted this message to conservative outlets like Fox News, largely gaining the support of border wall advocates, and even Trump himself, whose fervor for the wall Fisher consistently praises. Trump has allegedly tried repeatedly to influence the public bid process by pushing the U.S. Army Corps of Engineers (USACE) to award Fisher the contract, as yet to no avail. Fisher, meanwhile, has demonstrated his construction technique to politicians in Arizona, claiming the tests prove his company capable of building 218 miles of the border wall in one year. Despite the USACE's negative appraisal of the design and Department of Homeland Security officials' negative views of the company, Fisher eventually found a partner to build the steel assembly in the privately funded, pro-wall, conservative nonprofit We Build the Wall.

Fisher construction crews descended on Sunland Park over Memorial Day weekend, armed with specially equipped excavators and prefabricated bollard steel fencing. Construction was reported complete ten days later, with about a half mile of barrier constructed in the formerly pristine environment.

The shocking speed of construction, enabled by Fisher's proprietary methods and equipment, obscured the project's significant damage. The new border wall, although built on private property, abuts federal property, and its locked gate blocked entry to the American Diversion Dam, a critical piece of national infrastructure. The International Boundary and Water Commission, the agency that manages waterways on the U.S.–Mexico border, has ordered the gate to remain open to allow for operations and maintenance at the dam.

Additionally, to create a relatively horizontal cross section for the border fence appropriate for the company's method, Fisher filled an existing deep arroyo with 200,000 cubic yards of soil. The effects of this extensive terraforming within a fragile desert ecology are unknown, as the company did not perform an environmental impact assessment. Scientists speculate that much of the disturbed soil was heavily polluted from nearby industry and will precipitate into the Rio Grande, sending more pollutants downstream, mostly into Mexican farms.

While we as architects might resist the border wall itself, we must also respond to the myriad advances in the construction industry which have matured in its wake. Efficiencies must not be gained at the expense of human dignity or lives. **Ersela Kripa and Stephen Mueller / AGENCY**



AGENCY

The concrete forming system uses modified construction vehicles and "quick connect" arm couplers that hoist steel formwork.

In Memoriam: I. M. Pei

1917–2019



I. M. Pei died on May 16, 2019.

Ieoh Ming Pei—everyone knows him as "I. M."—is a name that will live on in the annals of great people, talented architects, conceivers, gentlemen, and good friends. I see him through eyes that were always critical...and always respectful, admiring, and loving.

I might start with his family. I. M. and his wonderful wife, Eileen, created a family of talented children who grew to be stalwarts in their own ways. When I visited their home in Manhattan, Eileen would often pull me into her kitchen, where she taught me to shuck oysters, peel potatoes, and the like. These personal relationships were a defining quality of working with I. M.

But, of course, I. M. earned his position as one of the world's leading architects through a dedication to his work, and by tackling that work with creativity, an inborn curiosity, eyes that perceived beyond what was known to the rest of us, and skills as a communicator. Preferring direct communication, he was not one to peruse a three-page letter. Indeed, I. M. and I exchanged countless sketches, but not writings; I have not a single piece of paper with his written thoughts. As a part of his early university education, he studied engineering, so it was easier for me to explain to him what I wanted to do in ways other than words.

It was well into his career, around 1975, when I. M. called me regarding the Kapsad Development in Tehran. Before departing for Tehran, I read all that I could about the earthquake risk in the area and learned that the British had conducted a significant survey. As we drove north out of the city, we passed a construction site burdened with a vertical seismic fault, perhaps 60 feet exposed—and with new buildings to be constructed across it. I. M. understood perfectly that our construction could not be built across such a fault. In any event, we continued our journey and were able to hike into the area of our proposed site. There, I discovered a small hole in the ground; dropping a stone inside revealed that the area below our feet was deep and hollow and contained standing water. It was a remnant of Tehran's aging water tunnels. Believing it prudent, I suggested that we return to the car, but discovered a pack of wild dogs glaring at us. We beat a hasty retreat—without I. M. being aware of either the cistern or the dogs. On returning to New York, we were able to develop a construction system that incorporated the fault, but the time and cost parameters were just too strict.

I collaborated on several projects with I. M. Pei & Partners in the years that followed. In 1980, I. M. called regarding the Center for Arts & Media Technology at MIT, and in 1982, about the Bank of China Tower in Hong Kong. For BOC, I. M. asked that I come to his offices to discuss a very tall building. While I had worked on buildings in Hong Kong, none were tall. Armed with my careful research into the city's high winds, I met with I. M., who presented a large model demonstrating the shape of the proposed building, which later withstood proposed changes. We discussed the reality of the winds of Hong Kong, with I. M. completely cognizant of their impact on the design of the building. I proposed the use of large-scale diagonal bracing, which he accepted with knowledge and enthusiasm. In short, we were off down an uncharted path allowing I. M. to create a new aesthetic in very tall buildings. His BOC design set the stage for a series of tall buildings by other architects and engineers. Indeed, in my view, BOC is outstanding in the vast field of high-rise buildings.

Afterward, I. M. produced incredible designs for a one-room studio (in the United Kingdom), for the Joy of Angels Bell Tower (in Japan), for schools, modest laboratory facilities, research centers, museums (in both the United States and abroad), high-rises, and so much more. I. M. came to us often with "his last project"; knowing full well that Eileen Pei was pushing for his retirement, we accepted each one as "the last." But it was the Miho Institute of Aesthetics chapel in Shigaraki, Japan, that finally proved to be. He called for a luncheon meeting for the two of us to discuss the project. For the overall shape of the chapel, he proposed a kind of extruded ellipse, but with a top rim that is offset rather than concentric. I. M. described **continued on page 16**



In Memoriam: Stanley Tigerman (1930–2019)

Robert E. Somol's open letter to his recently passed friend and colleague.



COURTESY MARGARET McCURRY

Dear Stanley,

It took you a decent nine years to write to Mies after he died, but I could only wait three days. You know, just to make sure. You did resign your tenure from the University of Illinois, Chicago *twice*, after all, so anything is possible. Less circumspect or hopeful, most of the other members of the tribe have already rushed in to saturate social media feeds with postings and posings, leaving no chance for any Miesian moment of silence in your absence. These days, three days feels like a lifetime.

As much as you talked all these years, there are still so many questions that remain: *What was the connection between your lozenge paintings and Hejduk's diamonds? What was the genealogy of your soft corner? What can I do to get fired?*

One of your greatest attributes: You turned getting canned into an art form, always able to use crisis—indeed, design, and accelerate it—as a means to reinvent yourself and your work. When you hastily took leave of a coveted position at Harry Weese's within a year, you quickly opened your own office. The first time you resigned your University of Illinois tenure, in 1970, led to one of the most productive and influential decades of your career. When you then returned to run the post-professional program, and next the entire school itself as director from 1985 to '93, you were able to transform an unlikely state extension school into the envy of the Ivys. Not surprisingly, this put you at odds with the senior faculty, who scurried to a newly appointed dean to have you dismissed as director. Not one to let others determine your fate, you immediately resigned your tenure a second time, and, with Eva Maddox, cofounded Archeworks.

During those UIC years, you were a Bulldog Buddha sitting on axis with the door, at a 60-inch-round wooden Eames table in a ten-foot-diameter mini-rotunda, less an office than an aedicula. We always assumed there was a revolver taped to the underside, near where the Herman Miller seal of authenticity would have been. Before one of your first meetings with a delinquent faculty member on whom you expected to go off, you asked your then-new assistant, Nancy Gislason, to nudge you under the table if you started to go too far. After her three discreet attempts of increasing urgency to follow your request, you turned and flatly reprimanded, "God damn it, Nancy, stop kicking me! I know I'm making an ass of myself!" You didn't just know your limitations, you orchestrated their effective deployment.

There are so many memories of you in that circular Tiger's den, which one never entered voluntarily, but was summoned into, if naive enough to walk carelessly within your distant cone of vision: "Garofalo, get in here!! Is K on drugs, or what?!" you once inquired of the New York theorist newly arrived as the Greenwald Chair. Never mind that Doug himself had just met Professor K; in your world we would all be our brother's keeper. You would hold all of us, with your pointed emphasis, "per-son-al-ly responsible," invariably for things over which we felt no control whatsoever. But that was your secret superpower: seeing and expecting more of us than we could perceive in ourselves.

Beyond your offices on Wells Street and in the A+A Building, you could hold court from any table in the city, from the Arts Club to Manny's, Gene and Georgetti's to Coco Pazzo—always, as you advised and practiced, with your back to the wall, and preferably in a corner. You could see them all coming: the anxious ones, approaching for a favor; the smiling ones, looking for the opportunity to stick it in the back; the accused, rushing to the door to avoid having to do their version of the perp walk before your studied glare. "*He*"—dramatic pause—"is *not* generous," you once declared in an exaggerated stage whisper of a former member of the Chicago Seven sitting two tables away. When said former ally came over to pay his respects, your first and last words, not surprisingly: "*You*"—dramatic pause—"are *not* generous." For you, there was never a difference between private speech and public act; what you said was what they got. In the architecture world that one could never escape once in your orbit, they were always there, populating the periphery of every restaurant, opening, and conference: the rice krispies ("can't hurt you, can't help you"), the ones who were dead to you, the architects who drew like angels (and their opposite, those who "held their pencil like a civilian"), the writers "who owned the English language," and those who you declared possessed "a discernible IQ" (high praise), while tapping your temple with your index finger for emphasis.

You ordained quickly but could excommunicate with even greater alacrity. That is one reason our generation scrupulously avoided your various offices unless and until "invited." We feared your wrath more than we coveted your approval. I suspect we also grew up believing the approval of one's elders was more than a little distasteful, so we kept our thoughts to ourselves, wagering on the long game. This is not so true of the younger generation, your enthusiastic grandchildren, overeager to please, to show and tell *ev-er-y-thing*, and with them you always seemed to indulge a patience we never took the time to notice. Did you mellow with age, or was it just the new mellownium?

When you wrote to Mies in 1978 (with ironic shock and genuine satisfaction), it was to inform him that his legacy was lost: Modernism was moribund, IIT a sclerotic seminary, SOM an aging and unhealthy corporate carcass. Over the post-Miesian horizon, there was color, historical reference, pop, ornament, curvature, frivolity… *talk*. And today, four decades on, we are operating again on that same horizon you bequeathed to us, the one beyond *The Titanic*. When I returned to UIC in 2007 to reenact your role, you generously and without hesitation agreed to return as the inaugural lecturer, the first time you had set foot in Netsch's labyrinth in the 14 years since your dismissal/resignation. Ever since then, UIC would paradoxically become much more a Stanley school than it ever was when you were in charge. After the diaspora and years in exile, "we" had won. The first Chicago Architecture Biennial borrowed its title from you ("The State of the Art of Architecture"), while the second elevated you as its de facto central protagonist ("Make New History").

You had the temerity to suggest that Chicago was not just a city of pragmatics and profit, but of ideas and values, along with the talent to prove it and the tenacity to make others believe it. Through it all, you fought for discourse and argument and humor in a world dominated by marketing, platitudes, and unction. You remained committed to the belief that architecture, even in a place like Chicago, was a cultural event, that ideas and forms were connected—sometimes in your own work awkwardly or naively, at other times with shocking aura and simplicity. Just as you would take your work through serial attachments, quit, and move on, you would also direct the school through multiple and incompatible ideologies: pop-pomo, neoclassicism, deconstructivism, and the earliest moments of the digital, back when it was still manual. Others would mistake this as eclecticism, as a sign of your boredom, but in fact you were tirelessly demonstrating, training us in how to assume a position. It must have been exhausting to have to tutor a profession and a place so ill-suited to receive your lessons all those years, and no doubt it took its toll on your patience and your practice. Never willing to limit yourself to half a dichotomy, you would always rather fight *and* switch.

If future historians identify a third (or fourth) Chicago school, it will rightfully belong to you alone. Over the recent past decades a multinational and multigenerational band of disparate architects have come to the city for Mies, but left with Tigerman: from Ben Nicholson and Stan Allen to Pier Paolo Tamburelli, Jennifer Bonner, Kersten Geers, Momoyo Kaijima, and Job Floris. Of course, Sam Jacob and his partners at FAT were there very early, and his presence, along with other established visitors to the school, such as Paul Andersen, have helped establish UIC as a place to extend your initiatives. This is a significant and surprising genealogy of fellow architects and thinkers—colleagues, collaborators, combatants—and one not always identical with the locals you chose to coronate, who seemed to many of us to embody the kind of self-promotion and branding you would increasingly condemn in other contexts. You often said that the practice of architecture was the perversion of the study of architecture, locating the core of the discipline with reflection and principle. But nonetheless, you seemed congenitally inclined—or was it just contextually compelled?—to elevate the striving practitioners who would surround you, in a replay of the fate of Mies's disciples.

Frustrating as they were, those blind spots, those inconsistencies, were also part of your charm, a weakness for certain types. Despite your sometimes prickly exterior, you were an unrepentant optimist and romantic, a sucker for your latest discovery, always willing to assume that behind the smoke of others there was fire. Margaret McCurry, more measured and critical, saw that behind all that smoke there were often just mirrors. She was ultimately the tough and clear-sighted one over your 40-year partnership, the one you could depend on to keep you true to your highest ideals and best instincts, tolerantly rolling her eyes at your latest infatuations, all the while entreating you to eat your blueberries for their antioxidants. When you were blunt, it was often for effect; when Margaret was blunt, it was always for real. At once calculated and candid, the Tigerman-McCurry duo packed a powerful punch.

And then you left us, just 75 days shy of the fiftieth anniversary of Mies's departure. Even for you, the symmetry of that possibility must have seemed too much. As we can already no longer think of *him* without *you*, the chronological correspondence would have been too trivial. What was it Rem once said, in an effort to rescue Mies from his acolytes, as you so often attempted? "I do not respect Mies; I love Mies…Because I do not revere Mies, I am at odds with his admirers." So let it be with Tigerman.

Love,
Somol

The Turk's Inn

Bushwick is home to many transplants, but its latest arrival isn't a hipster with blunt-cut bangs: It's the Turk's Inn, a very 1970s full-service restaurant, rooftop bar, nightclub, and kebab stand transported from its longtime Midwest home and resurrected in one of Brooklyn's trendiest neighborhoods.

Childhood friends Varun Kataria and Tyler Erickson were devoted customers at the original Turk's Inn, a supper club in Hayward, Wisconsin, well-known for its steaks and over-the-top kitsch. When the restaurant closed in 2014, Kataria and Erickson bought the décor and fixtures at auction and hauled them to New York.

There's enough room in the 5,000-square-foot space for all the original trinkets and tchotchkes from the founders' collection. In the full-service dining room, a skylit alcove is festooned with riotous textiles and brass pendants from India.

The exuberant design language translates well to the restaurant and club. On one side, diners can order doner kebabs to-go from a counter made of pink laminate dreamed up by Ettore Sottsass, the famed Italian architect and designer. On the other, performers in the *Barbarella*-esque Sultan Room play in front of a starburst of laser-cut acrylic panels.

The inventive design did not come into this world easily, however. Getting the far-from-conventional program past New York's byzantine building regulations was a three-year challenge. Case in point: After a month of concept designs for the layout, an expeditor pointed out that the tiered Sultan Room needed a second staircase to the roof to achieve code compliance. "We really owned the project much more after a couple of these early rude awakenings," Kataria said.

A further complication ensued when the design firm hired by Kataria and Erickson dissolved after design development. In the last phase, the duo wasn't working with designers; instead, Erickson said, they returned to their DIY roots. The pair tackled lighting and sound design themselves and completed a two-in-one kitchen for dine-in orders and takeout. In the last push, Kataria and Erickson brought on skilled friends together to finish the work.

Although a homegrown team—not architects—propelled the design at the end, the pair gave a shout-out to Gaines Solomon, an architect from the original firm who stayed on to see the project through. (Solomon is now at 71 Collective, a firm he cofounded with two colleagues from his former office.)

The Turk's Inn is Kataria and Erickson's first restaurant. "This whole thing started with Varun and I just deciding to bid on a neon sign," Erickson said. "It was an amazing collaboration to pull this off in the end." **Audrey Wachs**



JEFF BROWN



(JEFF BROWN)

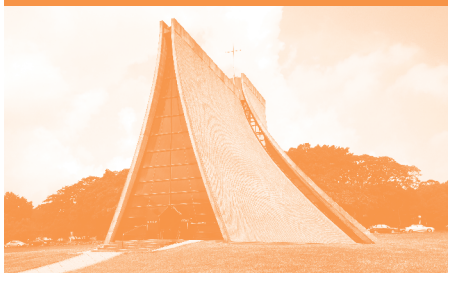
Front page: In Bushwick, where row houses abut light industry, "being nestled among the warehouses had the same feeling as being nestled among the trees, like the original Turk's Inn," Kataria said. "That's as close as we were going to get in New York." The awning, and most of the decor inside, was purchased at auction. **Top:** The bar, a fixture at the original Turk's Inn, was shipped to Brooklyn in a 53-foot semi-truck, along with dozens of other trinkets and furniture. **Above:** The new space incorporates decorations from the original owners' collection.

I. M. Pei **continued from page 13** its corrugated form as taken from a Japanese fan. Softly, I suggested to him that, to reduce costs, the roof could be changed to a smooth curving surface...a suggestion that, by the following morning, he had adopted.

I'm attempting to show by example that beyond his incredible talent, I. M. was an informed architect, willing and able to alter his designs as the project developed. For a party celebrating the opening of the chapel, SawTeen See, my wife and professional partner, and I found I. M. and Eileen sitting by themselves. Of course, it is difficult for younger folks to approach a person as exalted as was I. M., a fact accounting for the dearth of others at their table. In front of each of them was an untouched glass of red wine. We knew instantly that the wine was of inferior quality. We suggested to them that the Japanese whiskey was very good, indeed, and we were able to con the bartender into pouring from a bottle of ultra-fine and ultra-expensive Japanese whiskey—which was consumed by the four of us. The other side of this coin came at Christmas, when we nodded to Eileen's "suggestion" that a bottle of that wonderful and very expensive whiskey would make a fine gift for I. M.

I'm just not able to explain the full extent of this imaginative architect's outstanding talents and meaningful human relationships. His soft smile, his firm control over his own designs, his communication skills...all that made up this incredible person just escapes my ability to capture on paper. **Leslie E. Robertson**

See more images at archpaper.com.



Brant Foundation

Designer: Gluckman Tang

Gluckman Tang has converted Walter De Maria's former home and studio, a 1920s Con Ed substation on Manhattan's East 6th Street, into a second location for the Brant Foundation. The renovation of the Colonial Revival structure, which is fronted by amber-colored brick, casement windows, and a limestone base, included the restoration of historic details as well as the sensitive insertion of contemporary infrastructure. The most dramatic of these interventions brings an aquatic touch to the building: To provide additional daylighting for gallery spaces, the design called for the grafting of a 120-square-foot skylight, which doubles as a reflecting pool on the building's fourth-floor terrace.

At first glance, the skylight might appear to be glass—the design team's initial choice—but research done in collaboration with structural engineers from Silman showed that the material would require secondary structural support that would partially obscure the opening. According to Gluckman Tang project manager Edowa Shimizu, "It was determined that acrylic, a material often used for aquariums, had the structural characteristics necessary to support the weight of the reflecting pool without any visible secondary structure."

The design team placed the skylight within an existing girder bay, maximizing its size while avoiding the need to introduce significant loadbearing elements. For the production of the 12-foot-4-inch by 13-foot-8-inch acrylic tray, the design team turned to custom aquarium design firm Okeanos Aquascaping. On its own, the 4-inch-thick tray weighs 2½ tons, and that figure doubles when the vessel is filled with 600 gallons of water.

As could be assumed, placing a 5-ton pool of water above an art gallery in a century-old building required an intricate mesh of waterproofing details. The tray was craned into place on top of a concrete curb matted with a ¾-inch-thick neoprene pad that allows for a ⅝-inch thermal expansion in any direction. Prior to the installation of the neoprene, the concrete was covered with a liquid-applied waterproofing membrane produced by Kemper System. The tray is bounded by a powder-coated steel frame, which is in turn held in place by a series of adjustable tightening bolts.

From the interior, the skylight is visible through a rectangular opening paneled with lightly colored wood. The opening is outfitted with a motorized solar shade as well as an edge-lit acrylic light fixture developed by Flux Studio. **Matthew Marani**



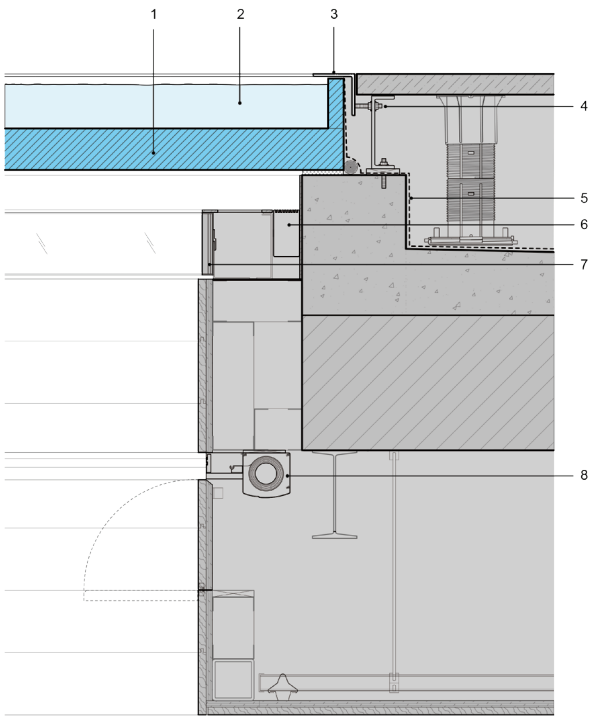
PHOTO BY TOM POWELL; PAINTINGS © ESTATE OF JEAN-MICHEL BASQUIAT, LICENSED BY ARTESTAR, NEW YORK



SEAN KEENAN



COURTESY GLUCKMAN TANG ARCHITECTS

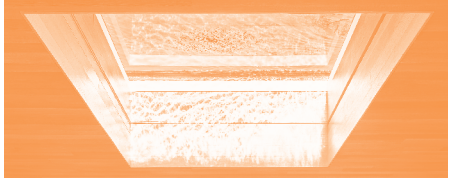


1. ACRYLIC REFLECTING POOL-SKYLIGHT (4" THICK BASE)
2. WATER
3. REFLECTING POOL EDGE CAP
4. FRAME ADJUSTMENT SCREW
5. WATERPROOF MEMBRANE
6. ELECTRIC HEATING UNIT
7. EDGE-LIT ACRYLIC LIGHTING PANEL
8. SOLAR SHADE & ACCESS PANEL

COURTESY GLUCKMAN TANG ARCHITECTS

The 120-square-foot skylight of the Brant Foundation is composed of a multi-ton acrylic tray, and is connected to remote water treatment and heating equipment to allow for year-round use.

See more images at archpaper.com.



Soccer City **continued from front page** new levels of seating. Fretlike trusses support a 117-foot cantilever and wrap back across the top of the building, transitioning into subtly modulated clusters of pipes as they extend back down the facade and anchor to the sidewalk. “We looked at what would give it presence, knowing we weren’t going to make a solid, historicist, site-cast addition,” said Cloepfil. “We let the structure be the expression and had the tension pulled back to the street, which allowed the rest of building to be quite simple.” With limited space between the field and the property line, and to get to the right number of seats, the new levels of seating trays cantilever over the sidewalk, creating an airy, 25-foot-high street-level arcade behind the filigree of steel pipes. At each level, the architects “tuned” the angle of the seats to achieve the right slope and floor-to-floor heights to give visitors wide views of the pitch and accommodate the high-ball line.

Providence Park is one of the oldest stadiums in Major League Soccer, and Allied Works wanted to respect that history. The stadium’s original 1925 master plan by prominent Portland architect A. E. Doyle with Morris Whitehouse proposed a classically styled facility. While the west and north sides hewed more or less to the architects’ design, the stands on the east side morphed over time, eventually becoming a partially covered, low-slung seating area. Allied Works’ design visually reinstates the more vertical east side stands envisioned by Doyle and Whitehouse. “It was a missing piece,” said Chelsea Grassinger, Allied Works’ project lead, “and this was an opportunity to bring that back.”



JEREMY BITTERMANN

Three new levels of seating and existing stands are covered by the signature curved roof and steel trusses that wrap over the top of the structure.

Briana Miller



The Trust Building
Los Angeles

Architect: Gensler
Historical Consultant:
Architectural Resources Group

MORLEY BUILDERS
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| architects: Lake|Flato and Shepley Bulfinch | photographer: Leonid Furmansky |

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Diller Scofidio + Renfro



Without having to leave the firm's office on the eighteenth floor of Manhattan's old Starrett-Lehigh Building, employees at Diller Scofidio + Renfro (DS+R) have front-row views of five of the studio's projects. They can look down at the High Line, the project that helped win the practice global attention, gaze over at The Shed, the brand new arts space at Hudson Yards, or look farther north to Lincoln Center, which DS+R transformed into an inclusive public space.

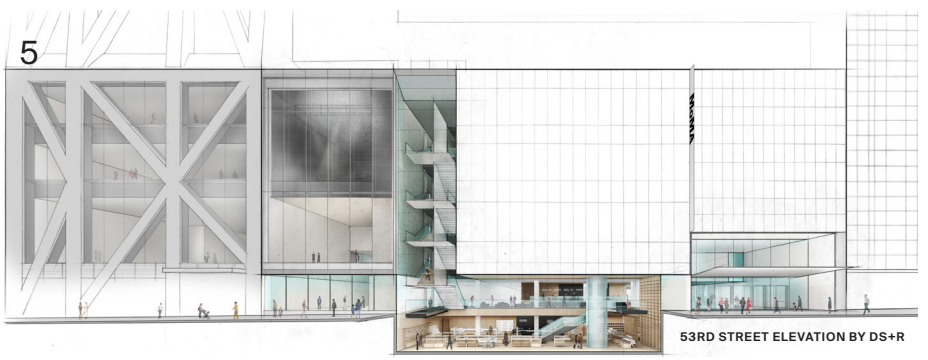
"Being so close to our work was definitely unintentional when we moved into this office in 2006," said principal Charles Renfro. At the time, the firm had just wrapped up construction on the Institute of Contemporary Art in Boston, design work had begun on the High Line, and the practice was still mainly known for experimental installations and interiors, like the former Brasserie Restaurant in the Seagram Building. But now, just 13 years later, DS+R has 24 active projects around the world, including the Hungarian Museum of Transport in Budapest, and the expansion of New York's Museum of Modern Art (MoMA). With its planned completion this fall, MoMA will mark the firm's ninth built project in New York City, most of which only broke ground in the last decade.

While DS+R's work, no matter the typology, has always tried to activate public space, Renfro said finding projects that also address issues of inequity, housing, and climate change are top of mind now. "It's imperative for architects, who have a cultural position that's respected and are given so much opportunity, to take their knowledge, experience, and influence and share that with organizations and people that are less likely to get it naturally," he said. "It's important that our design thinking is put to use in the public realm. We want to better people's lives." **Sydney Franklin**









1, 2 The Shed & 15 Hudson Yards

Completed 2019

New York's newest destination for the performing and visual arts, The Shed, designed with Rockwell Group, is a transformative piece of infrastructure spanning eight levels housing galleries, a theater, rehearsal space, creative lab, and upper-floor event space with natural light. Jutting out from the base of DS+R's 910-foot-tall 15 Hudson Yards, the development's first residential skyscraper, the city-backed cultural space boasts a telescoping outer shell covered in cloudy ETFE panels.

3 High Line (and The Spur)

Completed: Phase 1, 2009; Phase 2, 2011; Phase 3, 2014

Together with James Corner Field Operations and Piet Oudolf, DS+R designed the 1.5-mile-long elevated park for Manhattan's West Side and created a bespoke paving system using precast concrete planks that allows plants to grow through its cracks. The "pathless landscape" has propelled a global rails-to-trails movement as well as throngs of high-end development along the park. Most recently, The Spur, the last section, which connects to the adjacent Hudson Yards megadevelopment, opened to the public.

4 Lincoln Center Public Spaces

Completed 2009, 2010

The iconic Lincoln Center campus was dramatically revitalized in 2010 when DS+R completed a 70,000-square-foot redesign of its public spaces. In an effort to turn the exclusive arts and culture hub practically inside out, the team connected and activated the on-site plazas and introduced a new central spine from 65th Street to Columbus Avenue. The project also included a renovation of the Juilliard School, a new Alice Tully Hall, an expansion of the School of American Ballet studios, and the addition of the Hypar Pavilion and Lincoln Ristorante.

5 MoMA Expansion

Opening October 21, 2019

DS+R will give the 53rd Street entrance of the midtown museum a facelift and add 40,000 square feet of new gallery space to its building. The project, which has been unveiled in phases, also includes the rehab and extension of the historic Bauhaus staircase to the upper-floor galleries, and the addition of a new, first-floor lounge that faces the sculpture garden. Once finished, the design overhaul will allow MoMA to enhance its experimental, performing, and visual arts offerings, and should connect it more seamlessly with the public.

DEVELOPER NATION



The Horton Plaza shopping center in downtown San Diego is being converted into a creative-office complex by developer Stockdale Capital Partners.

SHIMAHARA ILLUSTRATION

BACK IN MOTION

For its 250th anniversary, San Diego gets an update.

As it celebrates the 250th anniversary of its founding this year, San Diego is rethinking past projects, planning billions of dollars' worth of new projects, and coping with a housing shortage that is making it one of the nation's least affordable markets.

The most significant project on the boards is the redevelopment planned for Horton Plaza shopping center, a 1985 postmodernist downtown mall designed by Jon Jerde. But there are many other megaprojects under construction or in the offing throughout this county of 3.3 million residents.

Laura Warner, an architect who moved from the San Francisco Bay Area in the 1980s, watches all this action from her perch as cochair of the San Diego Architectural Foundation's Orchids & Onions program. This 43-year-old education effort celebrates the good and shames the bad in local building, landscape, planning, and historic preservation projects.

"We've got some really well crafted, well designed, and well detailed buildings that are places that people like to go to, where they want to create memories," Warner said.

San Diego's architectural zeitgeist goes back to its founding in 1769 by Spanish colonizers intent on protecting the area from European rivals and the local Kumeyaay population. The colonists introduced new building techniques, laid out towns as required by Spain's "Laws of the Indies," and built adobe and stucco ranch houses that remain the local go-to style, especially for residential development.

The city's iconic buildings and structures include the Mission San Diego de Alcalá, Reid & Reid's 1888 Hotel del Coronado, the 1915 Panama-California Exposition grounds in Balboa Park, the 1920s Navy and Marine Corps bases, the 1938 County Administration Center on the downtown waterfront, Louis Kahn's 1964 Salk Institute, and William Pereira's 1970 Geisel Library at the University of California, San Diego, campus.



The Chula Vista Bayfront project would include a Marriott-Gaylord convention hotel complex.



The 1920s-era Broadway Navy Complex is being redeveloped by Manchester Financial Group to include a new Navy office headquarters plus hotels and offices.

Post–World War II car culture led to sprawl, center-city blight, and urban ills shared with other American cities. Some midcentury mistakes are being reversed, but challenges remain: homelessness, high-priced housing (the median home price in May was $591,000), large wage gaps between tourism service workers and high-tech engineers, and relations with Tijuana across the Mexican border.

Ten major projects in the works promise to add to San Diego's collection of notable buildings, but it remains to be seen if any of them rise to world-class, must-see status in the decades ahead.

The Campus at Horton
Stockdale Capital Partners of Los Angeles bought the Horton Plaza shopping center in 2018 for $175 million with plans to turn it into a high-tech office complex with only half the 600,000 square feet of retail originally required in the center. The Jerde Partnership's original postmodern design was copied worldwide, and the new owners are seeking ways to retain some of its quirky features. L.A.-area firms RCH Studios and EYRC Architects are the design architects, and RDC is the executive architect for the redesign. The developers hope to complete the first phase by the end of 2020.

Chula Vista Bayfront
A 535-acre World War II–era industrial zone is being transformed into a complex comprising hotels, housing, retail, parks, and a conference center in this South Bay city's portion of the San Diego port tidelands. Houston-based RIDA Development plans a $1.1 billion hotel and conference center on 36 acres. RIDA's architect is HKS of Dallas.

Courthouse Redevelopment
Another repurposing project involves the 1960s downtown county courthouse. On the first of three blocks owned by the county government would be a $400 million, 37-story mixed-use building developed by Vancouver, Washington–based Holland Partner Group and designed by local firm Carrier Johnson + Culture.

Manchester Pacific Gateway
The Navy Broadway Complex, which dates back to the 1920s, has been leased to local developer Doug Manchester, who agreed to build the Navy a new West Coast headquarters. He, in turn, won rights to build hotels, offices, a retail galleria, and a museum on the balance of the complex's 13.7 acres. Gensler is the architect, and construction of the tower is well underway in the $1.3 billion, 3 million-square-foot complex.

NAVWAR
The Naval Information Warfare Systems Command (NAVWAR, formerly the Space and Naval Warfare Systems Command or SPAWAR) occupies former Air Force hangars dating to World War II located between Old Town San Diego and the Marine Corps Recruit Depot north of downtown. The Navy, seeking a modern research and development home, would like to repeat its deal on the Naval Broadway Complex by signing up a developer who would deliver such a building in exchange for the right to develop the rest of the site privately. The 71-acre location is also being eyed by regional planners as a "Grand Central" multimodal transportation center. The Navy expects to issue a request for proposals.

In the meantime, the local National Association of Industrial and Office Parks chapter sponsored a "university challenge" for a portion of the site. The winning $1.6 billion, 4.1 million-square-foot "Delta District" plan from students at the University of San Diego includes offices, housing, and retail, plus an "innovation center" where education and R&D would meet. De Bartolo + Rimanic Design Studio of San Diego aided the UCSD students.



The county courthouse would be replaced by a mixed-use tower.

One Paseo
Suburban development continues in San Diego County, and one of the most controversial suburban projects, One Paseo, opened earlier this year east of Del Mar on the North County coast. Opponents, led by a rival shopping center company, objected to the density and launched an initiative to kill the project, and the developer, Kilroy Realty, downsized the plans. The retail portion, by the Hollywood architecture firm 5+design, opened earlier this year, and the first apartments are due this summer.

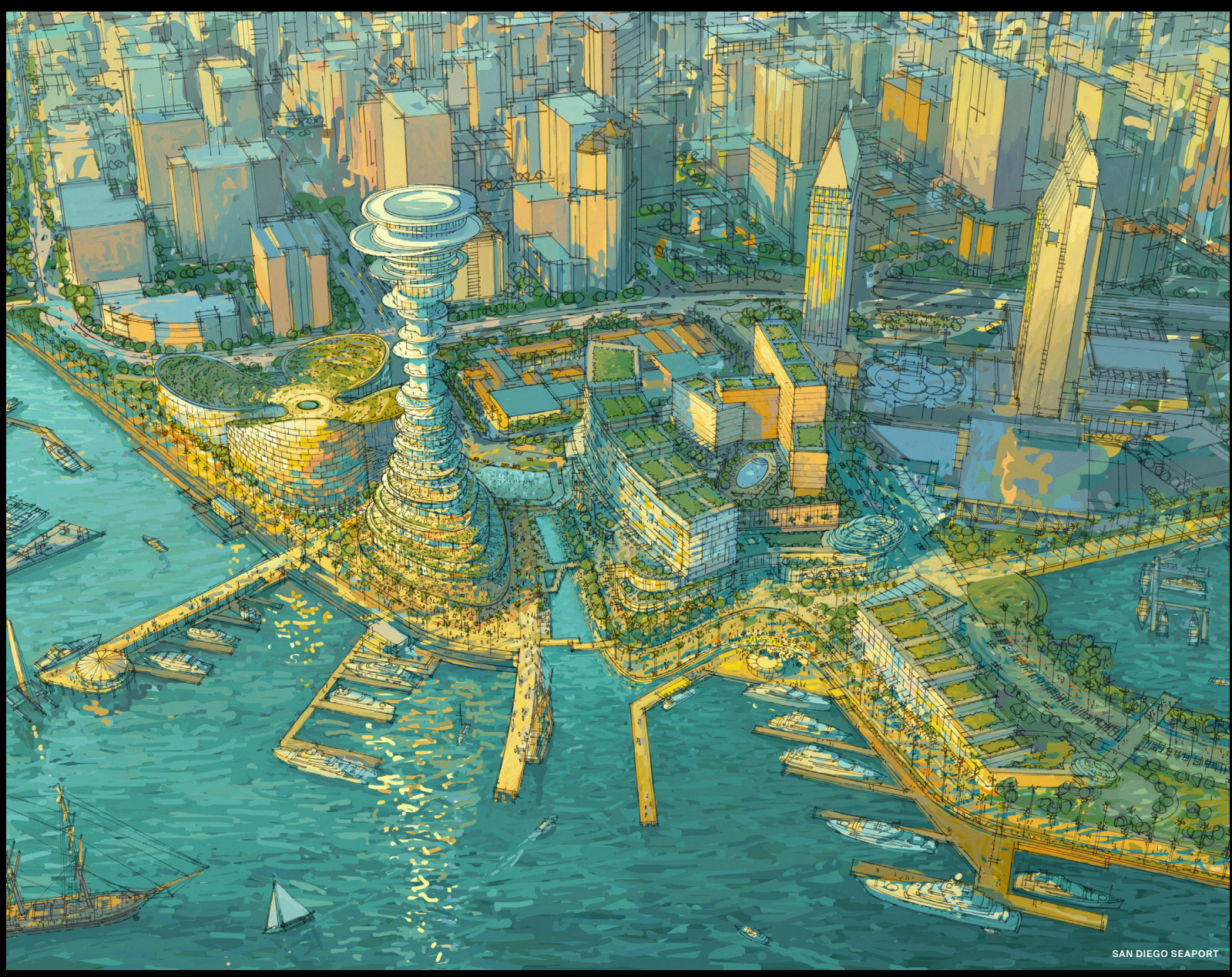
San Diego Convention Center Expansion
The center, built in 1989 and last expanded in 2001, will appear on the March 2020 city ballot in the form of a hotel tax increase that will fund an $800 million expansion, plus homeless and transportation improvements if it can gain the required two-thirds approval. The main new feature would be a rooftop public park. The project designer is Fentress Architects of Denver.

SDSU Mission Valley
San Diego State University won voter approval in 2018 over local developers' rival "SoccerCity" to redevelop the 166-acre site of the former Chargers NFL football stadium site in Mission Valley, north of downtown. When the Chargers returned to Los Angeles, the future of the 70,000-seat, 52-year-old stadium was up for grabs. SDSU plans to replace what is now called SDCCU Stadium with a smaller facility for its Aztecs football team. Developers would be selected to build 4,600 housing units and 1 million square feet of office and retail space that ultimately could be repurposed for academic use to complement the university's 250-acre campus a few miles to the east. Carrier Johnson + Culture prepared a conceptual master plan, and Gensler is the architect for the new $250 million stadium, which is targeted to open for the 2022 football season.

Seaport Village
The downtown Embarcadero postindustrial transformation began with the construction of the Robert Mosher–designed San Diego–Coronado Bridge in 1969. The obsolete ferry landing was redeveloped as the Seaport Village specialty retail center in 1980. Now it's time to turn the 39-acres of one-story buildings into something denser and more sophisticated. The current $1.6 billion plan calls for the usual mix of hotel and commercial uses plus an aquarium, ocean-oriented learning center, 500-foot skytower ride, and water-centric recreational and commercial fishing features. The project architect is San Diego–based AVRP Skyport.

UC San Diego
The UC San Diego campus, whose first class of fewer than 200 students took up residence in 1964, is nearing an enrollment of 40,000 and is planning to add three more undergraduate residential colleges to the six already in place. The 2,100-acre campus, spanning Interstate 5 in San Diego's La Jolla neighborhood plus a community hospital near downtown, has about $10 billion dollars in projects planned over the next 10 years. That doesn't count the $2.1 billion extension of the San Diego Trolley light-rail system which is due to reach the campus in 2021. The campus trolley stop will lead to a new campus gateway entrance, where several major buildings and an outdoor amphitheater are in the works. An off-campus downtown hub on the trolley line is already under construction. Numerous architectural firms, both local and national, have been engaged to build out the campus, including HKS and San Diego–based Safdie Rabines Architects for Sixth College, now under construction; Seattle-based LMN Partners for the Triton Pavilion, a six-building complex at the new trolley stop; and the downtown hub by Carrier Johnson + Culture.

Roger Showley is a freelance writer who recently retired from *The San Diego Union-Tribune*.



The 1980 Seaport Village specialty retail center at the former ferry landing would be replaced by a much denser mixed-use development with a 500-foot skytower ride.

INVASION BY THE EXCESSIVELY TALL

A new breed of skyscraper threatens to devastate the fabric of New York.

Imagine arriving at the Sheep Meadow in Central Park intending to lie on a blanket in the warm afternoon sun, as you have done many times before, only to find that there is no sunshine anymore. It has been blocked by a new tower just to the west more than twice the height of any building around it, including the 55-story Time Warner Center several blocks away. You look around and notice that more than half of the 15-acre lawn where you used to bask in sunlight is now in shadow.

The greatest urban park in this country is directly threatened by those who see it only from a distance. Just as Capability Brown cleared long vistas in front of grand estates, new Excessively Tall buildings turn Central Park into a landscape framed from above. As a result of these new giants, in a few years Central Park may well be unrecognizable and barren—like much of our environment, dying off and becoming extinct.

Our built environment, one that we architects designed, will have mortally damaged an Olmsted and Vaux masterpiece. The irony is that the new Excessively Talls (ETs), jacked up on stilts or interspersed with large and repetitive mechanical voids to increase their height over adjacent buildings and secure desirable park views, may ultimately lose their picturesque vistas. These multimillion-dollar investments may be responsible for the measured obliteration of New York City's world-renowned park.

Developers whose new, faster construction methods have accelerated the emergence of a building type catering to the superrich have now launched insidious advertising campaigns showing off the "new" New York: a thicket of gleaming skinny towers. None of these projects have affordable units. Their ads boast park and river views from altitudes of 600 feet and higher (not all ETs are Supertalls, defined by the Council on Tall Buildings and Urban Habitat as towers measuring over 984 feet high). But the parks they showcase, Central Park first among them, will continue to exist in name only. No bucolic pasture will remain in the Sheep Meadow, the carousel will be too cold to enjoy, the ball fields unplayable (grass dies in the dark), Wollman Rink gloomy and windy, Tavern on the Green in shadow all afternoon. The New York City Marathon's slowest runners will be greeted at the finish line not by waning sunlight but by a giant shadow, courtesy of the latest addition to the Upper West Side, a forthcoming tower designed by Snøhetta on West 66th Street, less than 600 feet from the park.

The new ETs—many completed along 57th Street, now aptly nicknamed Billionaire's Row—are also beginning to touch down wherever there is a view for sale and zoning doesn't limit height, such as the remaining landing strip of underdeveloped properties between First and Second avenues with potential views of the East River and Long Island, and, most recently, on axis with St. Patrick's Cathedral, where Gensler has designed a tower. Has anyone considered that natural light would no longer stream through the church's stained glass? Whatever happened to protecting our heritage and neighborhoods with sensible planning and human-scale development?



BINYAN STUDIOS/SNØHETTA

Rendering of the Snøhetta project for Extell Development at 50 West 66th Street, shown on right. The mid-building voids provide the height needed for upper level apartments to have views of Central Park.

ETs are catastrophic energy hogs, far worse than typical urban residential construction. Exaggerated floor-to-floor heights and full-floor apartments create a worst-case scenario for energy efficiency. Superskinny towers also have far more structural steel and concrete than is required to bear gravity loads because of the need to resist outsize wind loads. Local infrastructure (water, sewage, and power) is compromised, or service cut, because of the time needed to pump and discharge water and waste. And consider life-safety issues—how long will these buildings take to evacuate in an emergency, factoring in the time it takes to navigate multiple elevator banks, to rescue people in distress?

But the impact of ETs spreads far beyond their physical footprints, especially when they appear in numbers. Sophisticated software can conduct shadow studies on the cumulative effect of more than one ET on a city block. The East Side will soon have two towers between 62nd and 63rd streets, one fronting 2nd Avenue and the other on 3rd. Surrounding apartments left in their shadows will need artificial light all of the time, increasing demand on the power grid and our dependence on fossil fuels. And then there is the wind. While data retrieved from the study of a single ET may show that it has no negative effect, the cumulative wind tunnel effect produced by multiple ETs will quite possibly create impassable and turbulent streets, with vicious downdrafts caused by the Bernoulli effect (increased turbulence, or downdraft, as the wind hits a large facade).

The developers of these projects and some of our elected officials, unfortunately for us, have ignored the neighborhood residents affected. The public review process has become virtually nonexistent. Gone are community reviews, special permits, and even cursory notification to neighbors. The only way to find out how big these buildings are is by exhausting a Department of Buildings zoning challenge, then moving on to the Board of Standards and Appeals (Article 78), and finally, issuing an injunction. By then, the as-of-right ET will likely have entered construction, or worse, be built.

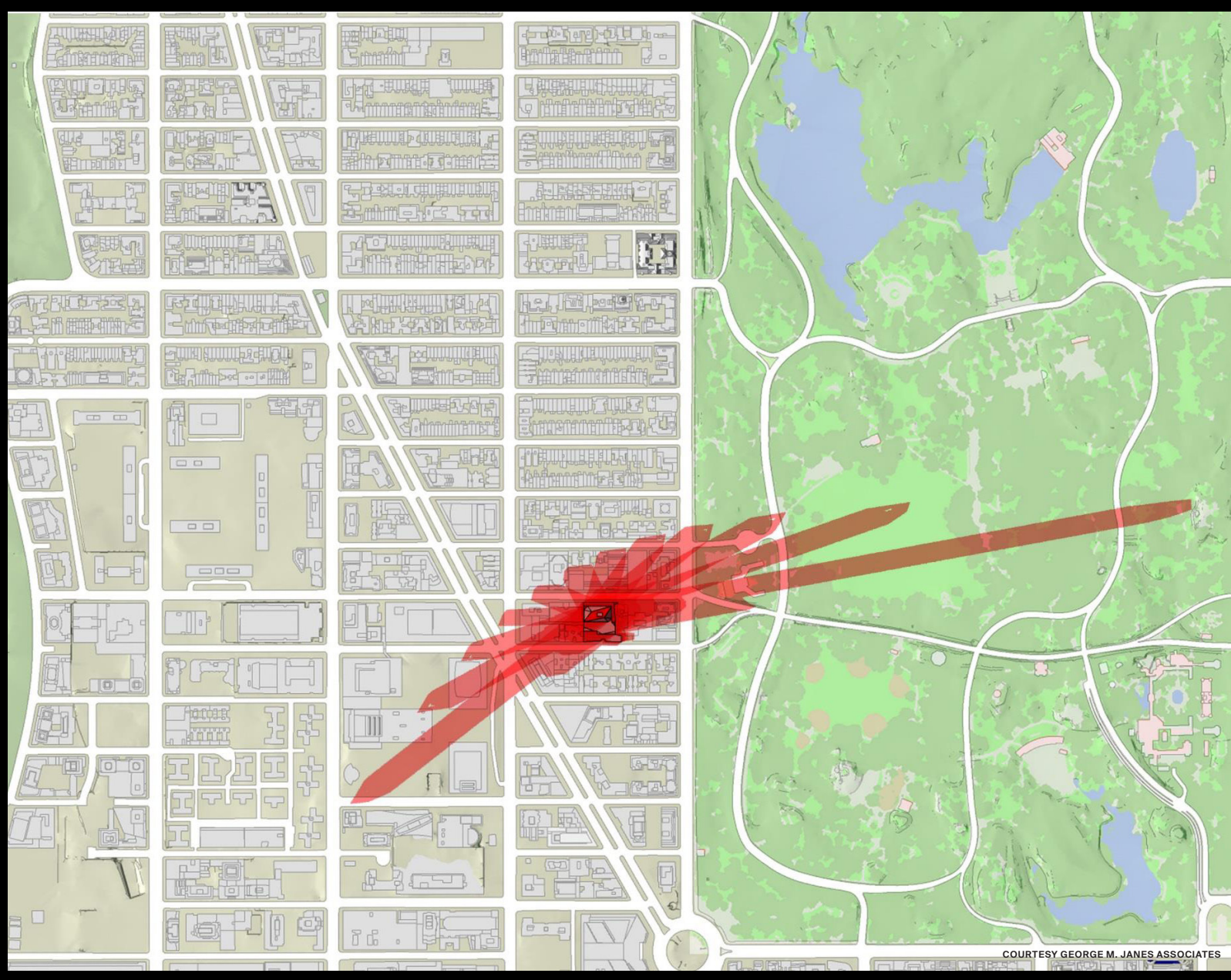
All is not bleak, as there are new regulations limiting the use of glass on tall buildings, thanks in part to the monitoring efforts of the Audubon Society, which has reported that millions of birds fly into such buildings every year because they can't recognize a mirrored image. That may help.

Not since Central Park was practically devastated by neglect during the Beame administration in the mid-1970s has it been so direly threatened, but this time the danger is from without, not within. ETs and other out-of-scale development also place community and public gardens, pocket parks, and playgrounds at risk. It's time for New Yorkers to rise up and insist on new restrictions to stop the indiscriminate abuse of light and air that could suffocate the city's parks and their adjacent neighborhoods. To be sure, our skyline is rapidly changing, and there will be consequences, but the potential for irreversible damage demands a moratorium. To insist on more insightful planning is not "NIMBYism"—it is the professionals taking charge.

Page Cowley is founder of the New York architecture practice that bears her name and serves as chair of Landmark West!, a New York preservation nonprofit, as well as cochair of the Manhattan Community Board 7 Land Use Committee.

Peter Samton was managing and design partner of the New York architecture firm of Gruzen Samton, aka IBI/Gruzen Samton, and is a past president of the New York Chapter of the AIA. He now serves on Manhattan Community Board 7 Land Use and Preservation Committees.

Daniel Samton practices architecture as Samtondesign in Harlem, has worked at KPF and Gruzen Samton, specializes in sustainability, and is a certified passive house designer.



COURTESY GEORGE M. JANES ASSOCIATES

Shadow study for June 21 from 8 a.m. to 7 p.m. of 50 West 66th Street commissioned by Landmark West! in October 2018.

PLACE SETTING

Why the developer's vision matters in the experience economy.

As our economy moves from one of consumerism to one of experience, the real estate industry needs to change. It's time to shift focus from the hardware of buildings to the software of place.

Developers are great at spotting the potential of land and what mix of uses and development will make land viable—what they're less good at is what happens next. When they hand over that mix and program to an architect and ask them to squeeze it all into the site, developers may be doing all they've ever done historically, but they are neglecting the most critical of steps: agreeing on a vision for the place. "Vision" here means a strongly defined collective destination, the north star that guides and aligns all decision-making and allows teams to answer that most valuable question, "What should we do?" rather than that far more expensive question, "What could we do?" This process begins by asking, "Who is this place for? Why will they come? What will they do here?" When a place lacks vision, the end result is often at worst a commercial or critical failure and at best a bunch of people asking themselves, "What might this site have been if we'd only known then what we know now?"

Architects often say that a project is only ever as good as the client. One of the challenges faced by developers is that many of them outsource the visioning process to architects rather than cocreating it with them. The best projects, and the best places, are always those that have a strong and shared vision delivered with unerring confidence. The absence of a place vision, and the reliance solely on a technical brief, can easily lead to cost overruns, design team disputes, ineffective communication, community objections, and ultimately simply soulless places.

As we move from a consumer economy to an experience economy, we are reaching "peak stuff." Millennials are far less interested in acquiring things and more interested in seeking experiences. Whereas their parents measured success by working hard to afford a luxury automobile, today's youth measure their status by the stories they can tell about the latest hip restaurant, a pop-up retail



COURTESY BATTERSEA POWER STATION DEVELOPMENT COMPANY

The Battersea Power Station development in London.

experience, or an amazing vacation cabin in the woods. Instagram is full of the experiences people sought as opposed to the stuff they bought. This is putting ever more pressure on developers to provide a level of experience traditionally only provided by historic or organically emerging postindustrial neighborhoods. It's time for real estate to step up.

Office developments are no longer about grand statements that appease the corporation. Organizations have shifted their focus to the individual and the attraction and retention of talent over the cathedral to capitalism that has typified so many office buildings of old. In parallel, online retail is winning over homogenous retail streets and shopping centers; places like this will die unless they can shift to provide nontransactional experiences. Online shopping means consumers won't bother to go to a shopping center or high street filled with chain stores to get things that they can simply buy with one click. There's more choice online and goods can be delivered, and even returned, on the same day. People will only venture to physical shops if the basic act of consumption is complemented by outstanding service or experience. So the long-term viability of retail environments is predicated on their ability to provide some form of experience that provides enjoyment to the consumer. Architecture alone is no longer the answer.

There is good news. Developers that are willing to take the "missing step" and really focus in on vision, purpose, and establishing a place brief will do well. They are not just stemming the tide of failure but actually achieving premium values across all real estate sectors. Kings Cross and Battersea Power Station in London have both proved that considered thought—rather than additional capital—can result in increased demand and value; Google and Apple both moved their operations to the respective projects—proof, if ever it were needed, that a strong vision leads to solid capital results. Closer to home, a strong vision and early communication for SOM's The 78 development in Chicago allowed Related Midwest to secure stakeholder support for its ambition even before finalizing the massing, which paved the way for faster approvals.

We need to embrace the synergy between great places and their consequent value appreciation. This is how we create a culture of self-perpetuating success, which will enable change where planning policy has failed. A small number of progressive developers have recognized that the market is changing. They can see that customers are increasingly seeking out experiential places that are engaging to live in, work at, or visit. Successful development is increasingly about the software of experience rather than the hardware of buildings. How you invest in creating place can vary whether you are investing millions into a sculpture at Hudson Yards or into a tech incubator to seed market momentum in Tampa. In contrast, traditional developers that are failing to develop or repurpose projects with such a sense of purpose and life are seeing their investment values stagnate.

The scale of postindustrial sites that are now coming forward means we are no longer developing infill buildings that work off the historic character of established neighborhoods. Developers are working across entire districts, and it is essential that an overarching vision and purpose is established at the earliest opportunity. Failure to do so will result in incoherent and unsuccessful new districts; cookie-cutter, big brand monoculture; and disappointing, unpopular places. We are all familiar with places that have failed; they are globally prevalent, and the reason the real estate development industry is treated with such contempt and skepticism by the general public. But as new case studies emerge, such as King's Cross in London, they act as a showcase for the synergy between the creation of great and thoughtful places and a more viable business practice.

David Twohig is a founding partner of Wordsearch Place.



An outdoor performance and bar space at the Battersea development.

COURTESY BATTERSEA POWER STATION DEVELOPMENT COMPANY

Glass

Glazed and Diffused

In this year's annual glass issue, we explore projects from around the world where glass is used in new and unexpected ways, including a massive dome covering the world's tallest indoor waterfall, and what will be the world's eighth-tallest skyscraper. We also survey decorative panels, bird-safety glass, and jumbo-size glazing.



Safdie Architects' Jewel is a shopping complex beneath a mammoth glass dome in Singapore's Changi Airport.

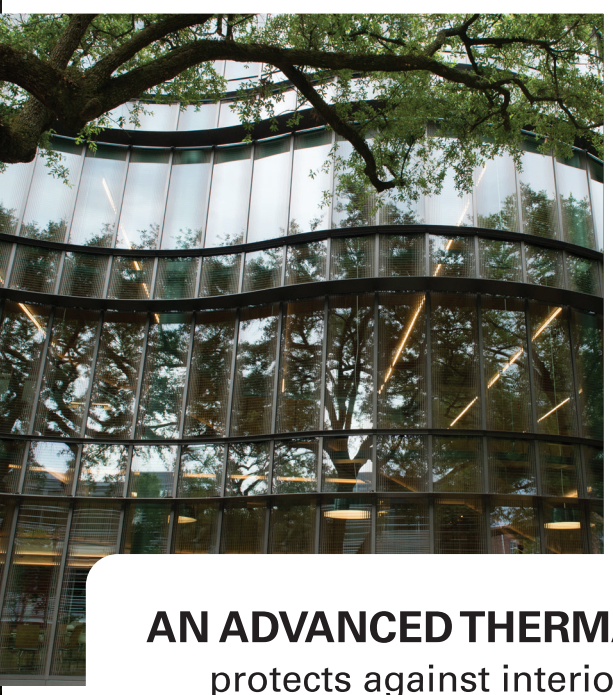
COURTESY JEWEL CHANGI AIRPORT

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Cummins Corporate Office Building Retrofit


STEVE BULLOCK

Location: Columbus, IN
Architect for retrofit: RATIO Architects

Original architect: Kevin Roche John Dinkeloo and Associates (KRJDA)
Curtain wall manufacturer: YKK AP
Glass manufacturer: Viracon
Glass products: Viracon VS-14

Originally built in 1985 in the modernist Mecca of Columbus, Indiana, the Cummins Corporate Office Building was designed by Kevin Roche John Dinkeloo and Associates (KRJDA). The 480,000-square-foot building featured an intricate facade of alternating precast concrete and glass panels in a sawtooth plan overlooking a parklike campus designed by landscape architect Jack Curtis. As part of a recent renovation and retrofit, a new curtain-wall system was installed to improve the building's performance and bring in more natural light while respecting the architectural integrity of the original building.

Working with RATIO Architects, YKK AP designed and built a new curtain wall using its YCW 750 OG Outside Glazed Curtain Wall System. The glazing system was developed to accommodate larger spans and higher pressure while improving a building's thermal performance. For this project, though, the system's design flexibility was its most significant characteristic.

Of primary importance to the design team was ensuring the new curtain wall could maintain the same lines and depth as KRJDA's original concrete and glass system—not an easy task considering the original north-facing windows featured multiple glass panels and concrete spandrels within a single framing system.

This posed a particular challenge to YKK. Not only did it have to set multiple panes of glass within the same mullion system, it also had to ensure that all panes could be replaced without removing the entire system. Of course, the designers had to maintain the interior appearance as well, adding interior glass panes without any visible offsets or notable seams.

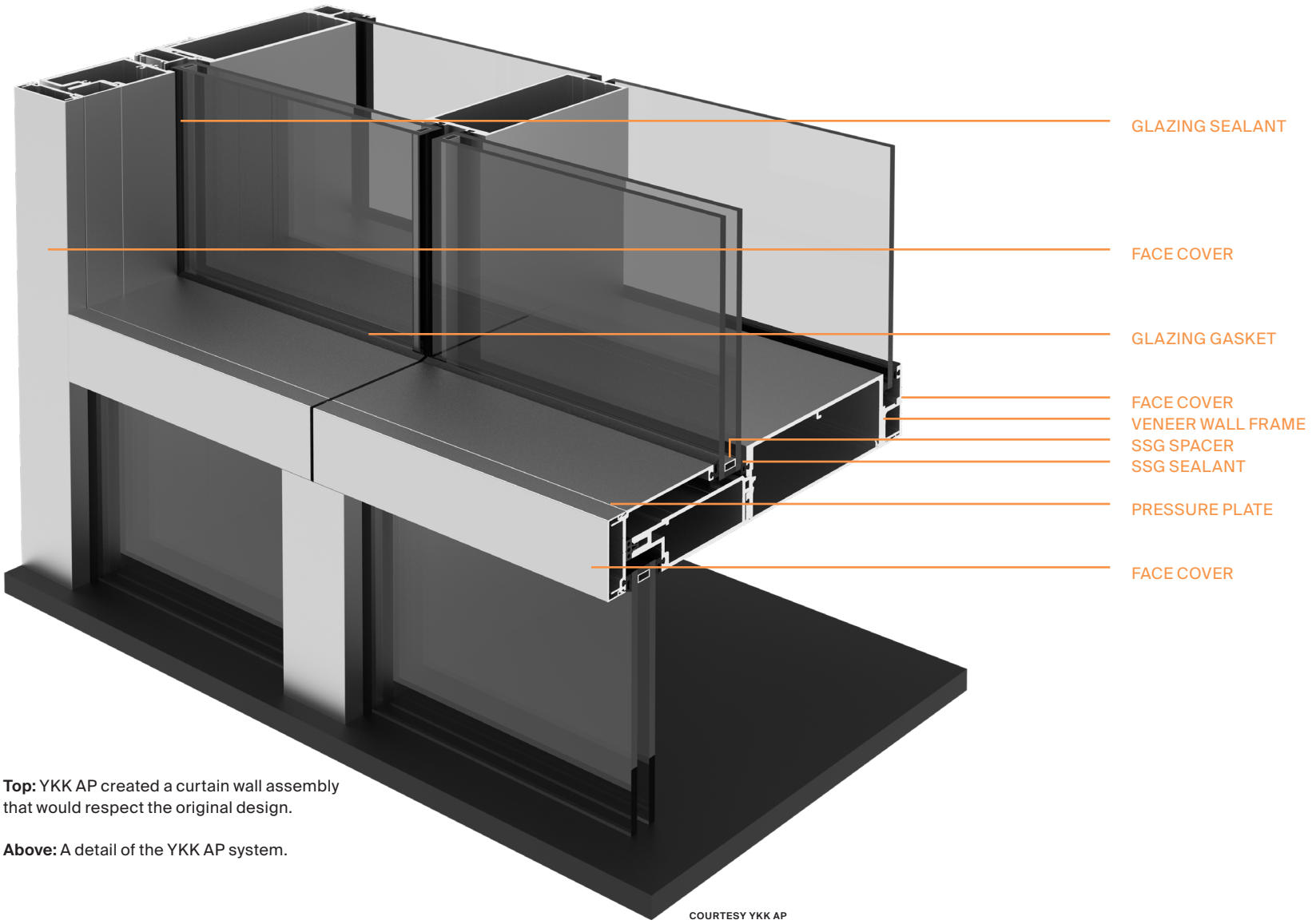
The design of the new system succeeds in preserving the composition, projections, and setbacks of KRJDA's original facade.
Jimmy Stamp


STEVE BULLOCK

Top and above: The Columbus, Indiana, building was originally designed by Kevin Roche John Dinkeloo and Associates with a landscape by Jack Curtis.



STEVE BULLOCK



Top: YKK AP created a curtain wall assembly that would respect the original design.

Above: A detail of the YKK AP system.

COURTESY YKK AP

Safety Glass

Given the rising need to increase safety in schools and institutions, smaller specialists and big glass producers alike are developing new protective glazing. These new products are equipped with impact-resistant features. *By Gabrielle Golenda*

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Jewel Changi Airport


DARREN SOH

Location: Singapore
Architect: Safdie Architects

Facade consultant: BuroHappold Engineering
Water feature designer: WET Design
General contractor: Mero Asia Pacific & Choon Hin Stainless Steel
Glass manufacturer: Vitro
Glass products: Vitro Solarban 70XL, Solarban 72, and Starphire Ultra-Clear
Structural steelwork: Yongnam Holdings Limited
Glass fabricators: GnT Glass Company

The Safdie Architects–designed Jewel Changi Airport is a 144,000-square-foot toroidal-shaped glass-and-steel pavilion looping around the world's tallest indoor waterfall. After four years of construction, the $1.3 billion project opened its doors in April 2019 as a bid to deliver a "paradise garden" amid the cacophony of Singapore's largest airport.

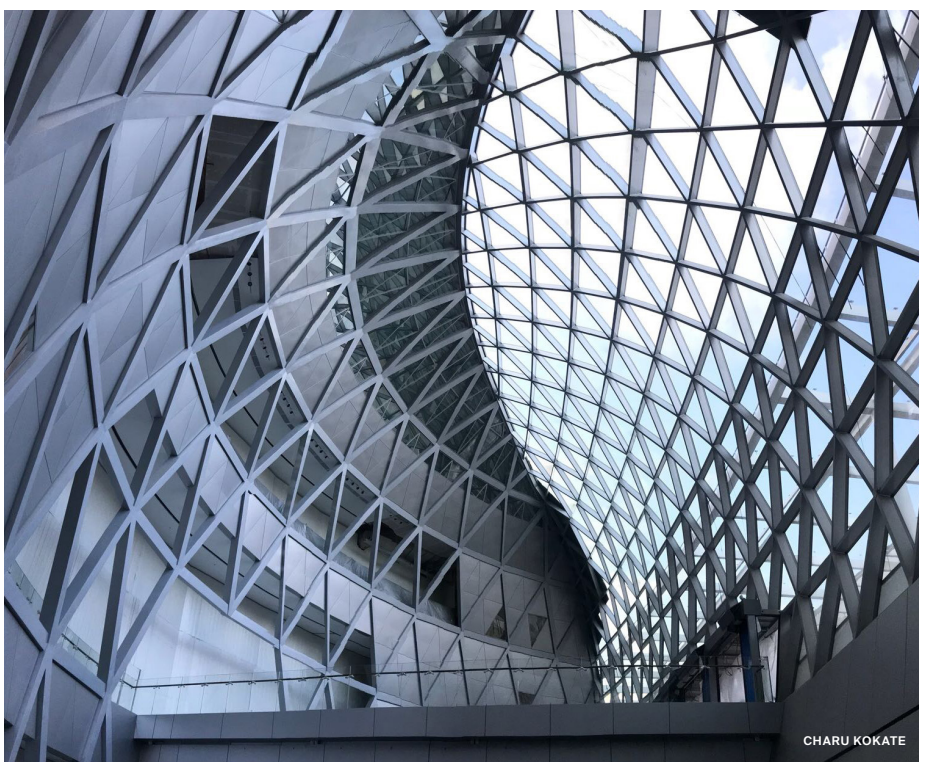
The structural system of the canopy is based on a highly complex stick-and-node mesh fabricated with over 50,000 distinct components assembled piece by piece on-site. The roof spans approximately 675 feet at its longest and 510 feet at its widest. In total, the steel mesh weighs a colossal 6,000 tons.

From above, the pavilion's layout looks symmetrical, with many identical glass panels. This is not the case. "The design of the roof is a single-layer add-on system composed of 9,000 custom cut—no two panels are the same—double-glazed panels positioned over the triangulated steel diagrid structure," said Safdie Architects principal Jaron Lubin. "The double-glazed panel sizes were determined to a maximum dimension of 8.5 feet measured diagonally, which was the size found commonly among several major suppliers."

The project is wrapped with Vitro Architectural Glass's low-e Solarban glass, while Vitro's high-visibility Starphire Ultra-Clear is used for the interior's pedestrian bridges. By using low-e glass, the project is slated to receive a platinum rating from Singapore's GreenMark program.

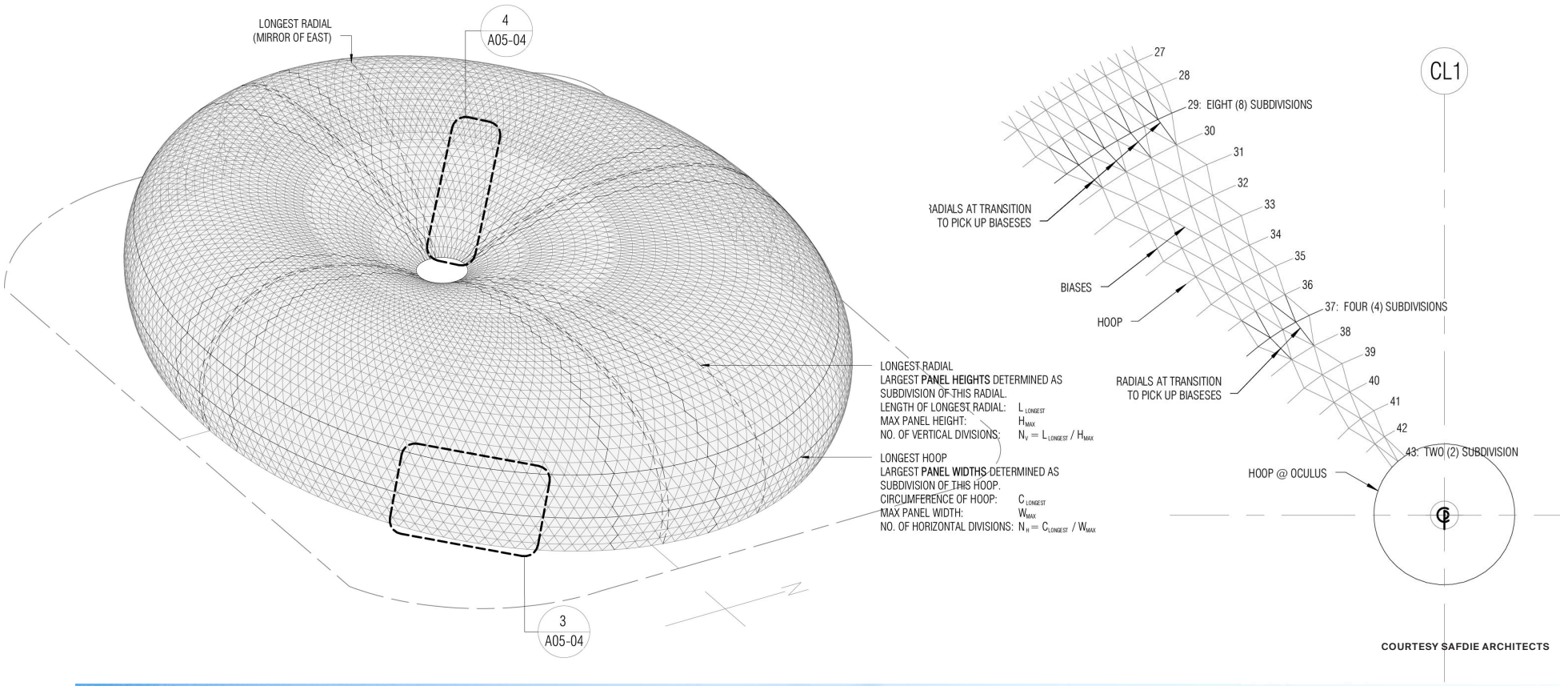
Although the mechanics of the project are remarkably complex, Safdie Architects developed a design-to-construction methodology to ensure the timely completion of the pavilion. "The entire system, including glass panels, steel members, and the custom-shaped solid steel nodes, was fabricated directly from the design team's computer model by CNC robots," said Lubin. "The components were produced off-site and then shipped to Singapore in containers. Special labels with scan codes were used on all the components to assist in locating their final position in the building."

The centrally located Rainwater Vortex, the massive waterfall around an oculus approximately 33 feet in diameter, is the product of collaboration with BuroHappold Engineering and water-feature design firm WET Design. The oculus is topped with an ETFE cushion while a custom-designed circular valve controls water flow between a narrow gap in the glass facade's surface.
Matthew Marani


CHARU KOKATE

Top: The Jewel Changi Airport features the world's tallest indoor waterfall at a height of 130 feet, which is controlled by a mechanical weir.

Above: The structural steel system is visible throughout the interior of the shopping center.



COURTESY SAFDIE ARCHITECTS

CHARU KOKATE

Top: Over 50,000 distinct parts make up the roof's stick-and-node system, which was assembled on-site.

Above: The approximately 9,000 glass panels are double-glazed and span hundreds of feet.



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Executive architect: RLP
Facade consultant: Arup
Structural engineer: SOM
Sustainability consultants: QIDI, WSP (Asia) Limited
Lighting consultants: Isometrix Lighting Design, Brandston Partnership Inc. (BPI)
Wind tunnel testing: BMT
Glass manufacturer: CSG Holding Limited (China)
Mullion manufacturer: Jangho

For what will be the eighth-tallest building in the world when finished later this year, SOM didn't want to do a by-the-numbers glass facade. Which is good, because the designers couldn't have even if they wanted to—the building's convex and concave surfaces, along with its tapered shape, meant to help shed the wind loads bearing on such a tall building (it'll reach over 1,700 feet), demanded an original solution.

The building's biomorphic form, reminiscent of the pistil of a hothouse flower, suggests it could have used curved glass panels, but it doesn't—the client wanted something less risky. The architects instead chose flat glass panels—about 11,500 total—from China Southern Glass (CSG Holding Limited). The vision glass comprises Insulated Glass Units with heat-strengthened, laminated, low-iron outer lites, a double-silver, low-e coating, and tempered, low-iron inner lites. Spandrel panels are made of low-iron, laminated glass.

The use of flat glass panels meant that the designers had to get a bit more creative with the mullions to cover the doubly curved surfaces. They turned to an adaptable mullion system from Jangho, a major Chinese curtain-wall manufacturer, that could take over some of the formal gymnastics. In total, only 476 unique glass panel types were needed.

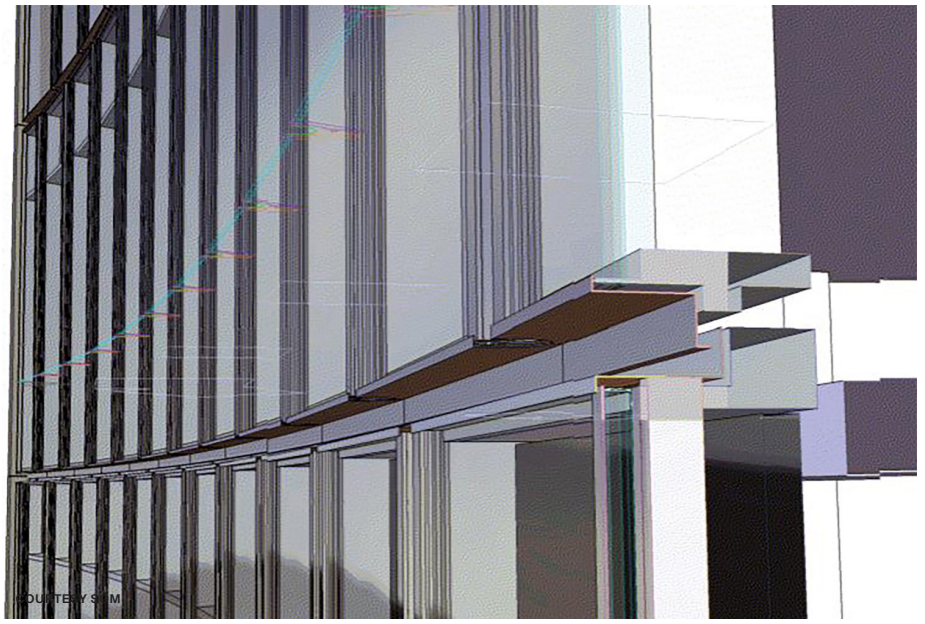
The design team also wanted to find a way to minimize the window-to-wall ratio to reduce solar gain and increase insulative value while still providing ample daylight. They ended up with V-shaped mullions that are almost 11 inches wide on the exterior and narrow to a much smaller profile on the interior.

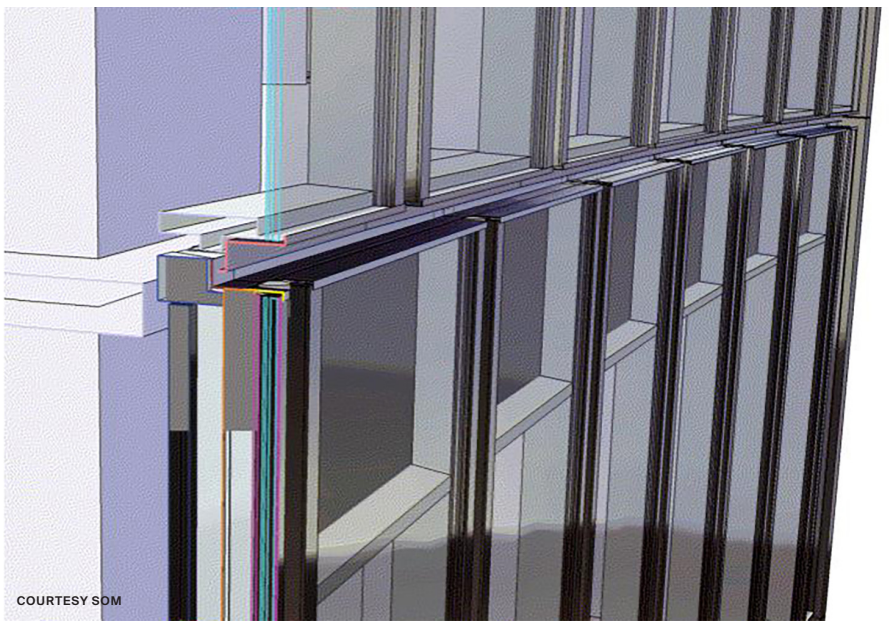
The building's taper gave each floor a different shape; therefore, the exterior panels fit differently around every level, which meant that the mullions couldn't easily be arranged in perfectly continuous lines up the building. Rather than trying to approximate vertical stripes with the mullions, the designers staggered them to create a snake skin–like effect that reads as organized but organic, a reflection of the flexible thinking required to erect this giant. **Jack Balderrama Morley**



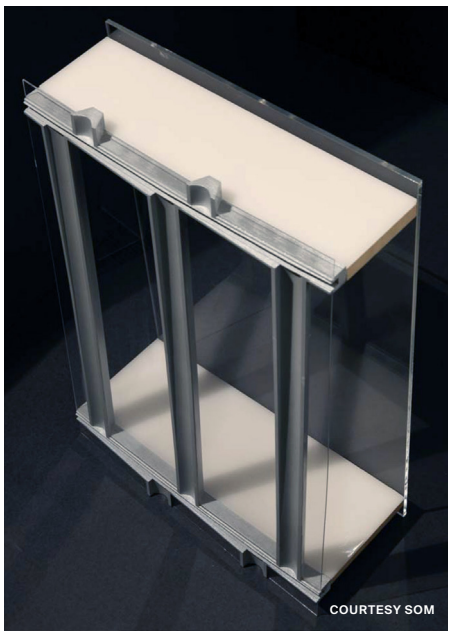
TIM GRIFFITH











Opposite: The building's skin uses about 11,500 individual flat panels.

Left: The building will be the eighth-tallest in the world when finished later this year.

Top and middle: Because of the building's bulging shape, every floor plan is different, and the designers staggered the mullions rather than trying to align them.

Above: Models studied the layouts of bent glass panels, left, versus flat glass panels, right. The simpler flat panels mean that the mullions must become more complex to handle the building's curves.

Tammany Hall

Location: New York
Architect: BKSK

Facade consultant: BuroHappold Engineering
Structural engineer: Thornton Tomasetti
Construction management: CNY
Shell grid fabricator: Gartner
Glass manufacturer & fabricator: Eckelt – Saint-Gobain
Products: Saint-Gobain Parsol Grey, SGG Cool-Lite Xtreme

The neo-Georgian Tammany Hall located on the northeastern corner of Union Square has assumed multiple identities over the course of its near century-long existence: It has been the home of the notoriously corrupt Society of St. Tammany, a union headquarters, and a theater and film school. Now, BKSK Architects and BuroHappold Engineering are leading the conversion of the building into a contemporary office space, which will be topped by a bulbous glass dome ringed with terra-cotta panels.

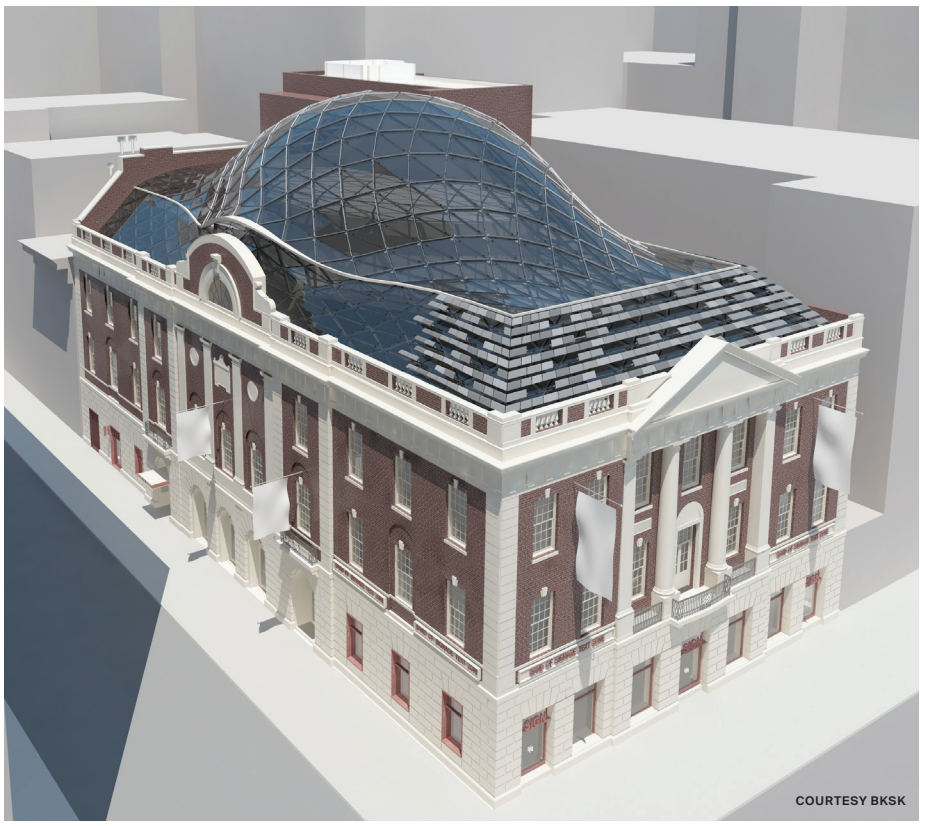
The design of the glass dome derives from both international Georgian precedents as well as the historic origins of the Society of St. Tammany—named after renowned Lenape leader Chief Tamanend, whose clan's symbol was a turtle. According to BKSK partner Todd Poisson, the design team interpreted Chief Tamanend's tribal imagery "with a turtle shell–like dome rising from this neo-Georgian landmark building, reimagining its tepid hipped roof with a new steel, glass, and terra-cotta base supporting an undulating glass dome."

Austrian manufacturer Eckelt, a member of the Saint-Gobain group, produced the structurally glazed insulated glass units. To reduce solar exposure to the office space below, the outer shell is built of tinted Saint-Gobain Parsol Grey panels treated with a high-performance sputter solar coating. The second layer of the carapace, separated from the tinted panels by a layer of air space, is composed of clear glass panels.

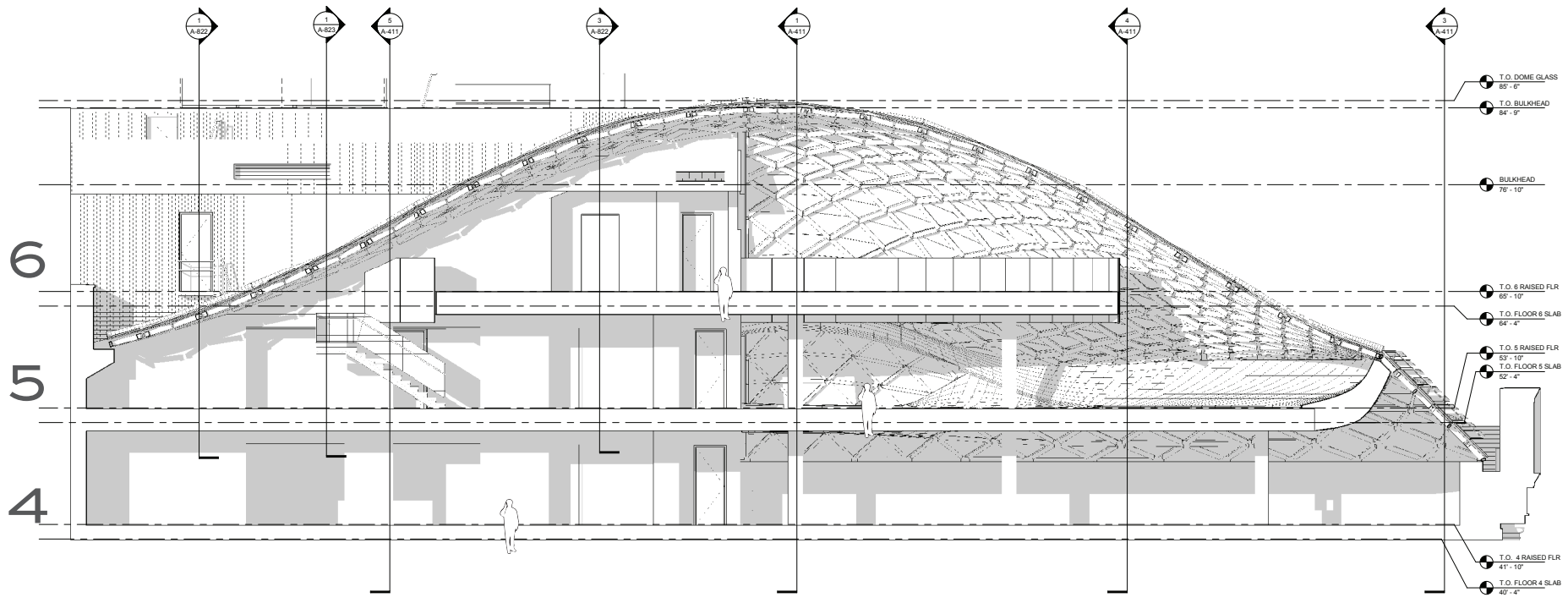
The roof, made of 850 isosceles triangular panels ranging from a 5- to 9-foot base, encompass a total surface area of approximately 12,000 square feet. Rising from the rear of the cornice line, the glass panels are fastened to an undulating steel free-form shell grid fabricated by Gartner.

To support the weight of the dome, and to facilitate the straightforward installation of structural members, the entire structural system of the historic building was replaced with a poured-in-place concrete core—effectively transforming the original load-bearing brick enclosure into a freestanding rain screen.

The project is scheduled to wrap up in 2020. **Matthew Marani**



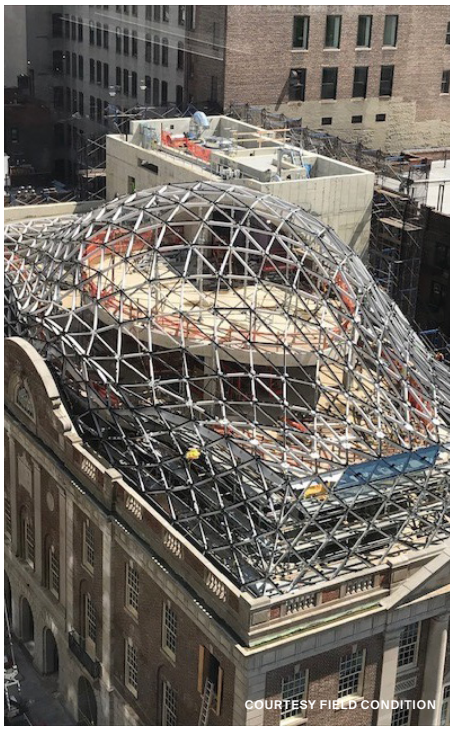
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COURTESY FIELD CONDITION



COURTESY FIELD CONDITION

Top: BKSK's redesign of Tammany Hall includes a bulbous glass dome inspired by Native American iconography. Terra-cotta along the west elevation mimics nearby mansard roofs.

Above: The dome includes 850 glass panels dramatically pitched along the northern elevation.

Left: The dome's steel mesh was fabricated by Gartner and is supported by a new poured-in-place concrete core.

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One Dalton

Location: Boston
Architect: Pei Cobb Freed & Partners; Henry N. Cobb and Roy G. Barris, lead designers

Collaborating architect: Cambridge Seven Associates, Cambridge, MA; Gary Johnson, lead designer
Structural engineers: WSP USA
Construction: Suffolk Construction
Glass manufacturer: Guardian Glass

Rising from a triangular lot in Boston's Back Bay, One Dalton is a 61-story, 706,000-square-foot residential tower designed by Pei Cobb Freed & Partners. Its gently curving triangular floorplan—a direct product of its unique site—is extruded vertically to create the building's clean but dynamic glass form. The slightly bulging facades and the sheer size of the glass units presented some major challenges when it came to developing the cladding.

The glass panels were the largest the firm had ever worked with, with a typical unit spanning 12 feet tall by almost 6 feet wide with a 30-degree curve. The firm set ambitious goals for the glass beyond the unusual size and shape with specific targets for deflection and distortion, solar and thermal transmission, color rendering, transparency, UV filtration, glare and reflectance, and noise suppression.

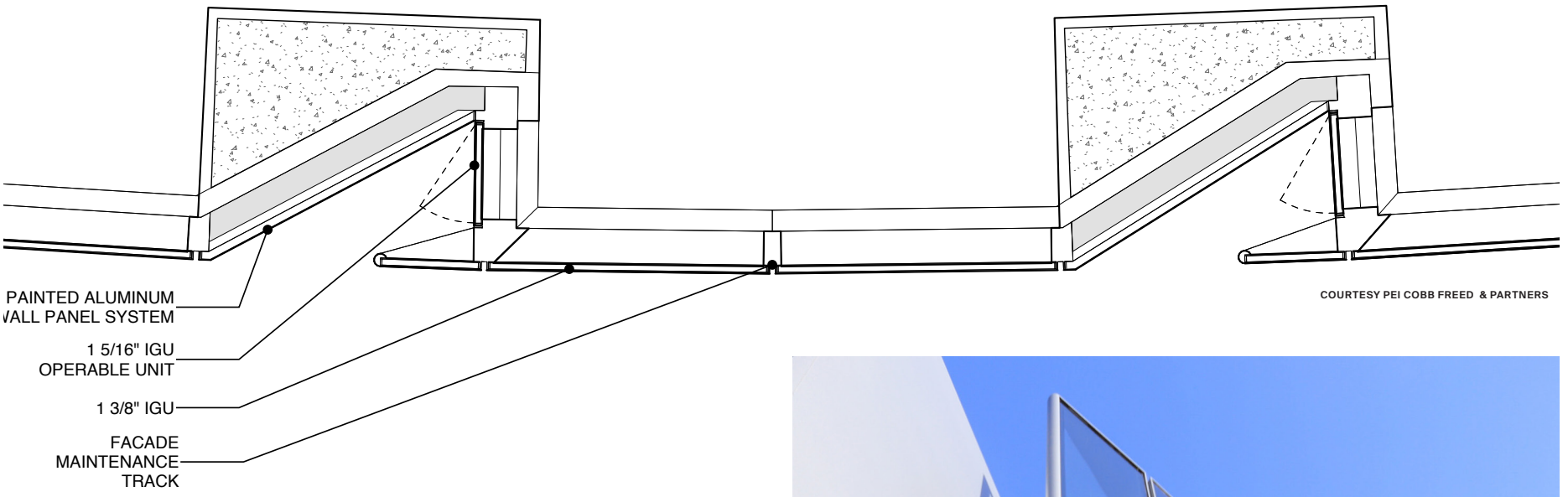
To find the perfect glass, the architects tested many different assemblies using full-scale mock-ups. They ultimately decided on a hybrid design that incorporated laminated, tinted glass with a mild, low-e coated solar control product (Guardian SunGuard SN 70/41), a low-iron substrate, and an argon-filled airspace. Testing also showed that the curving glass produced fun house mirror–like reflections at night, so an interior antireflective coating was added as well.

Much like the individual panes of glass, the overall facade is more complicated than it at first appears. Subtle incisions break up the massing of the upper 40 floors, creating protected spaces for operable casements while formally suggesting large bay windows that distinguish the condominium units from the hotel rooms below. "I'm a great believer that, especially in a city, it's important to bring out the different uses that are taking place [in a tower]," Henry Cobb told the audience in June at *AN*'s Facades+ conference in Boston.

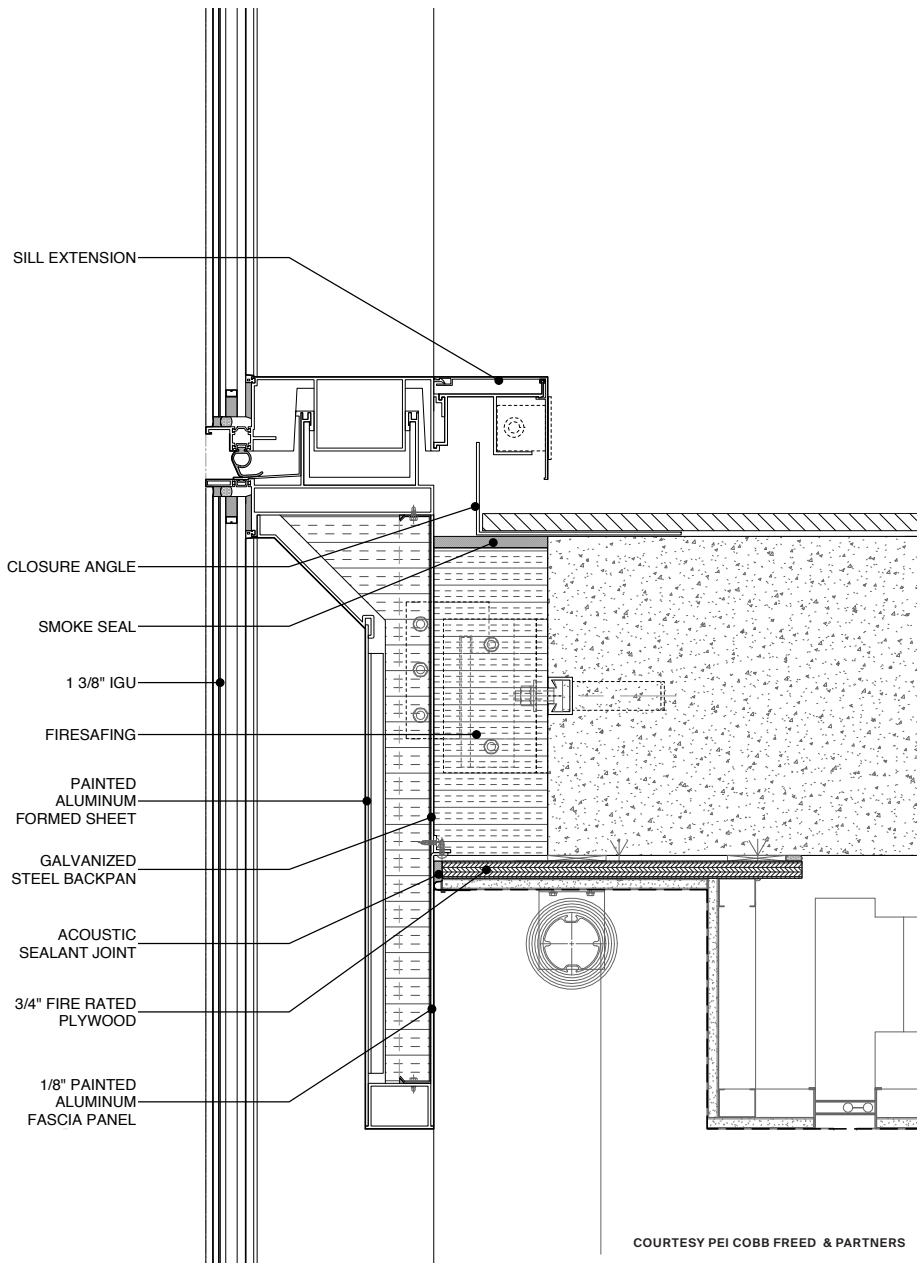
One Dalton wouldn't be possible without the rapid evolution of architectural glass driven by ambitious designs and new technologies. Commenting on these changes, Roy Barris, associate partner at Pei Cobb Freed, noted that despite the firm's exhaustive pursuit of the perfect material, "If we were to start this project again today, we'd have to start from scratch." **Jimmy Stamp**



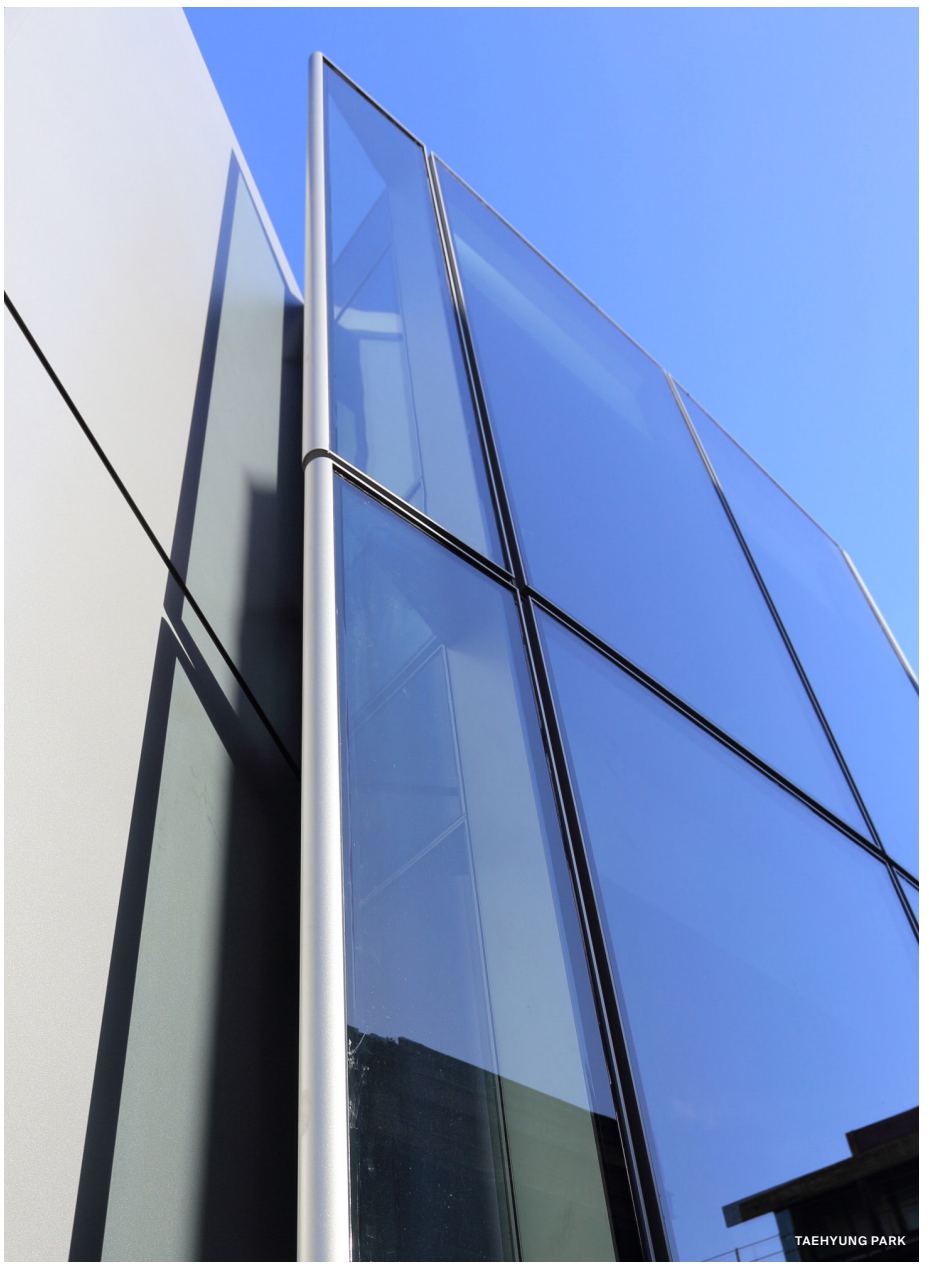
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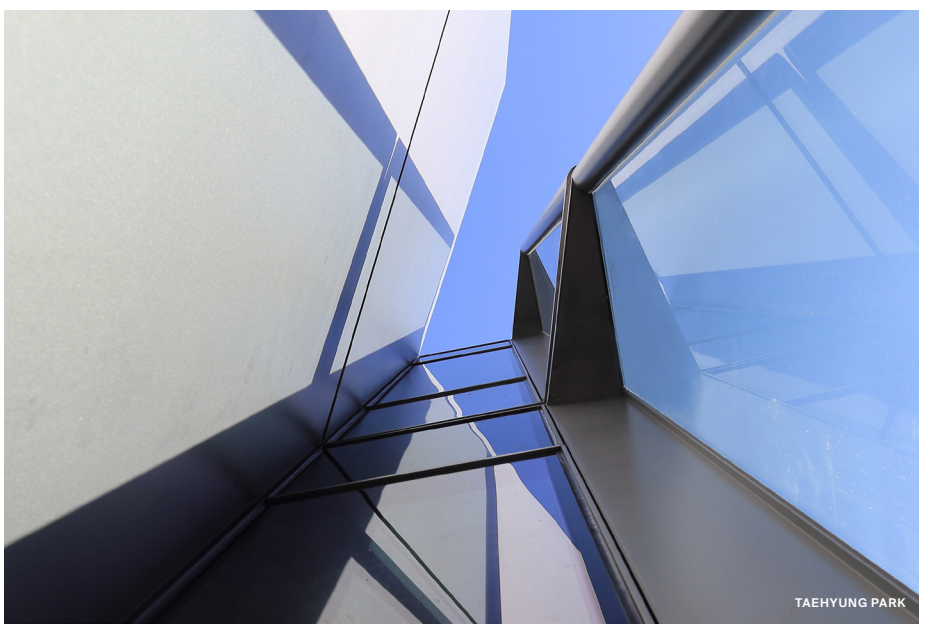
COURTESY PEI COBB FREED & PARTNERS



COURTESY PEI COBB FREED & PARTNERS



TAEHYUNG PARK



TAEHYUNG PARK

Opposite: The tower features a triangular floor plan that gently curves and bulges.

Top: A plan detail shows the incisions on the top floors of the tower.

Above: A typical wall section at the floor connection.

Above right: Detail photo of a mock-up of the incisions shielding the operable casement windows.

Right: Inside a mock-up of the incision.

Oversize Glass

Using new manufacturing methods, these fabricators produce the biggest glass panels equipped with pioneering structural support systems. *By Gabrielle Golenda*

Oversize Glass
Cristacurva

Custom made for each project, these large pieces can be used to create the most expansive roofs, facades, and windows. Cristacurva offers large format glazing as tempered glass, laminated glass, and in insulated glass units.

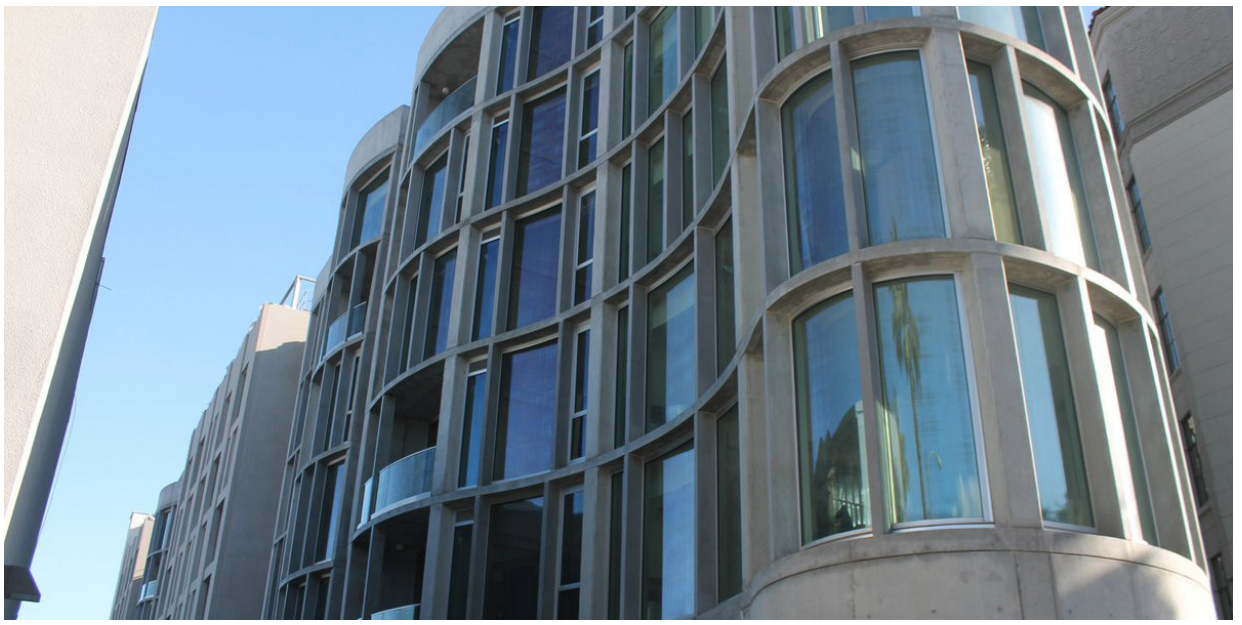
cristacurva.com

Jumbo Glass — Annealed Laminated
Glasswerks

Made in sizes up to 300 inches wide and 130 inches tall, these behemoth glass sheets are manufactured in Glasswerks' special Jumbo Glass factory in South Gate, California. The sheets are available in an array of substrates, thicknesses, and interlayers with low-iron glass, low-e glass, and clear glass.

glasswerks.com


RAFAEL GAMO



Jumbo Anti-Reflective Glass
AGNORA

AGNORA's 236-by-126-inch monolithic glass panels are ideal for any application where excessive glare would otherwise be a problem. Each sheet is treated with an anti-glare coating by Guardian Glass.

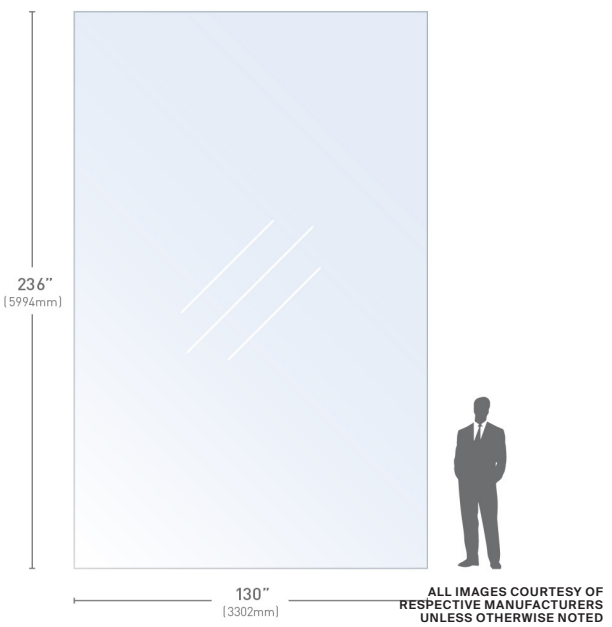
agnora.com

BIG Glass
Viracon

Viracon's BIG Glass panels come in sizes up to 130 inches wide and 236 inches tall. The large format glass sheets are offered in various styles including laminated, insulating, triple insulating, insulating laminated, laminated insulating, double-laminated insulating, and monolithic.

viracon.com





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aluflam



Photo: Nick Merrick ©Hendrich Blessing

Aluflam North America
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aluflam-usa.com

Skyline Design Bird-Safe Glass

Bird-safe glass patterns are permanently engraved with our Eco-etch® process on surface #1 of monolithic or prefabricated insulated glass units.



SD | Skyline Design

skydesign.com

Performance Glass

Bolstered by innovative fabrication methods and outfitted with new performance-enhancing features, these new glazing solutions provide both energy efficiency and security. *By Gabrielle Golenda*

MS-375TC / WS-500TC
Thermal Composite Entrance
Oldcastle BuildingEnvelope

This door is designed to meet the most stringent energy codes by combining thermal breaking technologies in the frame with a passive low-e solar coating on the glass. Multiple configurations are possible, including single, paired, and in groups.

obe.com



SuperClear 45-HS-LI
Safti First

This fire-protective glazing solution withstands flames for up to 45 minutes. Free from tints, laminates, films, or wires, the panel maintains optimal clarity. Depending on where SuperClear 45-HS-LI is installed, it provides approximately 90 percent visible light transmission. It is offered in door, window, and transom applications.

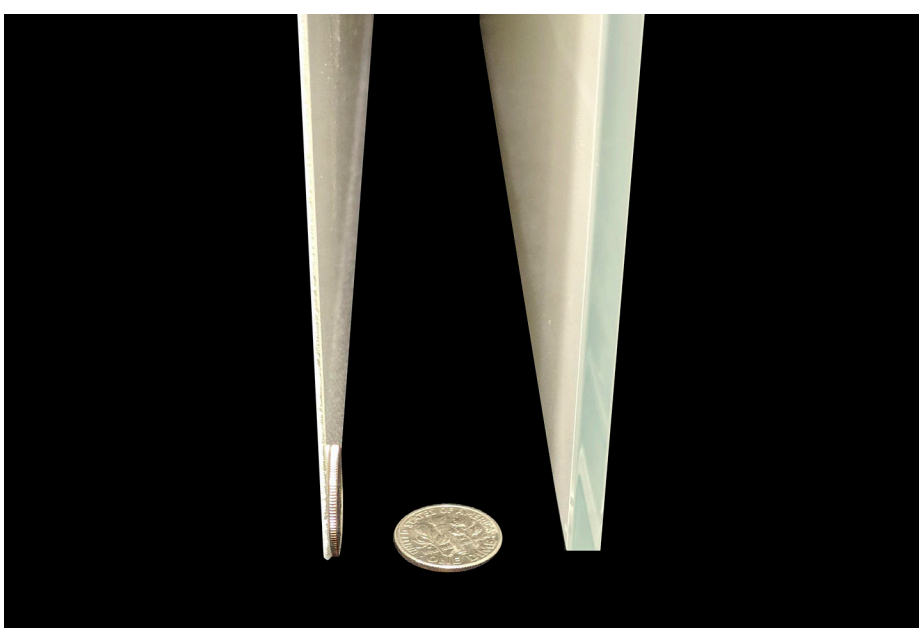
safti.com



DermaGlass
Pulp Studio

At just 1.3 millimeters thick, DermaGlass is thin, yet more durable than standard heat-treated glass. It is chemically strengthened by an ion exchange process that toughens the surface of the glass through compression. It is suitable for both indoor and exterior decorative applications.

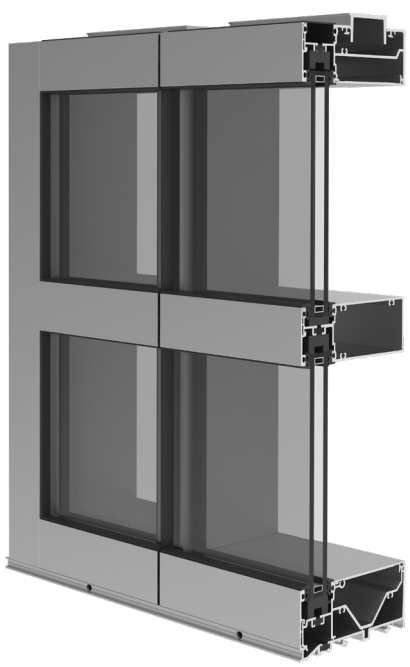
pulpstudio.com



YWW 60 TU
YKK AP America

Designed to fit floor-to-ceiling spans, this thermally broken window-wall system is equipped with YKK's patented MegaTherm insulating gasketing system. It provides thermal performance for 1-inch glazing (or ¼-inch infill using adaptors).

ykkap.com



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western
window systems

The Whaler
Kaanapali Beach, HI



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wwscommercial.com

Bird-Safety Glass

Thanks to new legislation and building codes promoting bird-friendly construction in Canada and the United States, manufacturers are developing glass that minimizes the likelihood of collisions. New architectural glazing products provide visual cues to birds without sacrificing views or the overall look of the building envelope. ***By Gabrielle Golenda***

AviProtek E Bird-Safe Solar Control Low-E Glass
Walker Glass

Vitro Architectural Glass partnered with Walker Glass on a bird-friendly glass developed for the new canopy at the National Aviary. Vitro's Starphire Ultra-Clear Glass transparent glass allows for optimal light transmission while making the light reflecting from Walker Glass's velour acid-etched finish more visible to birds.

walkerglass.com



ORNILUX Bird Protection Glass New larger sizes
Arnold Glas

At the AIA Expo in June, Arnold Glas debuted new oversize production capabilities for its bird-safety glass, ORNILUX. It is now offered in a maximum size of 126 by 472 inches, up from the previous maximum of 102 by 197 inches.

ornilux.com



Bird1st UV
Guardian Glass

This new coating reduces bird collisions by breaking up reflective areas of glass with vertical UV stripes that are barely visible to the human eye. It will be available this fall with Guardian SunGuard coated glass products, which will feature industry-standard frit patterns with the UV coating.

guardianglass.com

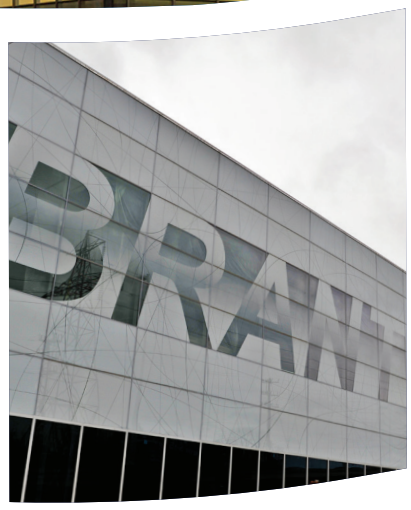


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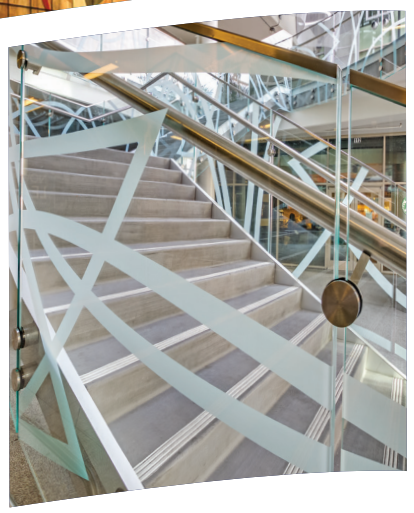
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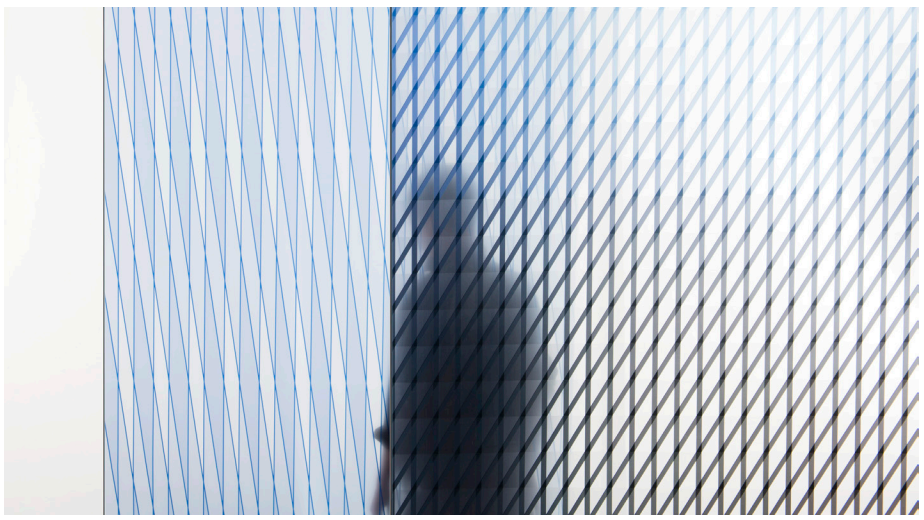
Light and Color

Ephemeral by design, these decorative glass panels emphasize the interaction of light and color. *By Gabrielle Golenda*

Oblique & Chevron
Ronan and Erwan Bouroullec for Skyline Design

Using software developed to translate color from photos into patterns of translucent layers, the Bouroullec brothers produced a glass collection that conjures the venetian-blind lighting effect. As light passes through the panels' series of shapes and lines, it refracts into linear patterns.

skydesign.com



Sherazade Patchwork
Piero Lissoni for Glas Italia

This patchwork arrangement of rectangular panes of glass is reminiscent of both cathedral windows and Mondrian. The delicate partition is available with sliding or pocket doors in single or double configurations.

glasitalia.com



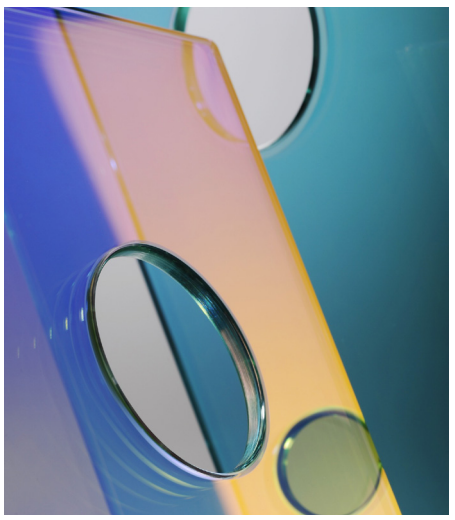
Dichroic Glass

Dichroic glass shimmers as it changes between two different colors depending on the angle of light passing through it. *By Gabrielle Golenda*

NARIMA
SCHOTT North America

NARIMA is suitable for indoor and outdoor use. The collection features six vibrant colorways that can be fabricated for various applications, including thermally strengthened safety glass, insulating glass, heat-toughened glass, and laminated safety glass.

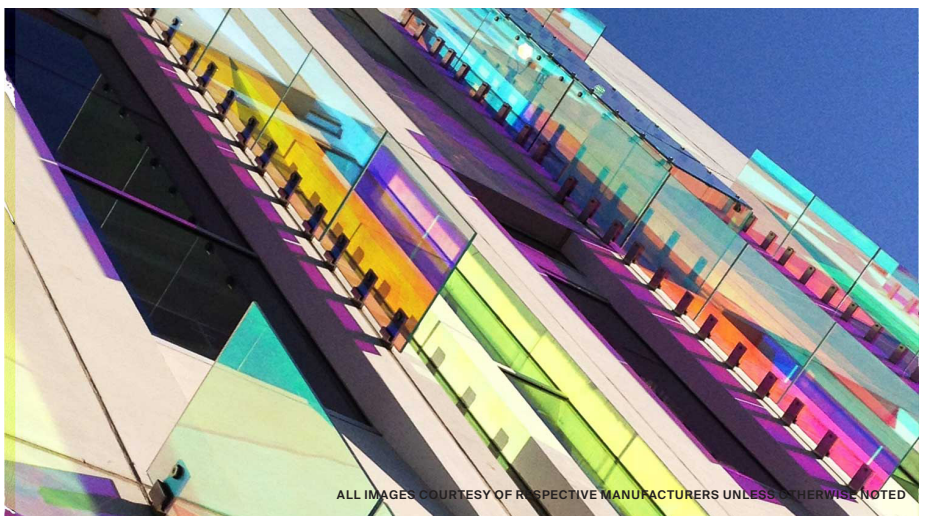
us.schott.com



Dichroic Laminated Glass
Goldray Glass

3M's multilayer optical film is laminated between two or more lites to create a dichroic effect. It is available in two color palettes, in fully opaque or translucent glass panels.

goldrayglass.com



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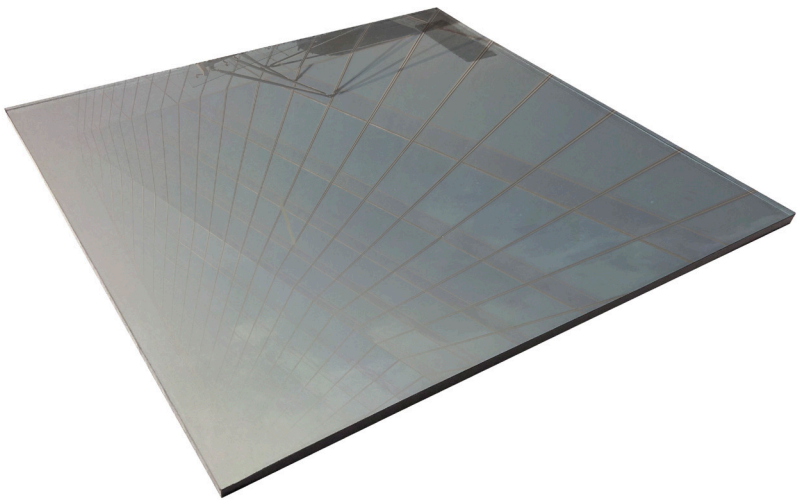
Silver and Gray

Ranging from subdued gray to iridescent silver, these fanciful glass panels add a subtle strain of elegance. *By Gabrielle Golenda*

Solarshield Majestic Grey
AGC Glass

Solarshield Majestic Grey is a neutral, tinted glass that provides 65 percent light transmittance. It can be used as part of an insulated glass unit, and can be laminated, tempered, heat-strengthened, or bent. It is available in ¼ and 5⁄16 inch thicknesses.

agcglass.com



Luminosity
Nathan Allan Glass Studios

Emulating the folds of a sumptuous textile, this luminous 3-D product features a multitude of swirling metallic colors on a highly textured surface. The silvery finish is offered in aqua blue, cognac, green, and red, in panels ⅜ inches thick up to a maximum size of 50 by 100 inches.

nathanallan.com

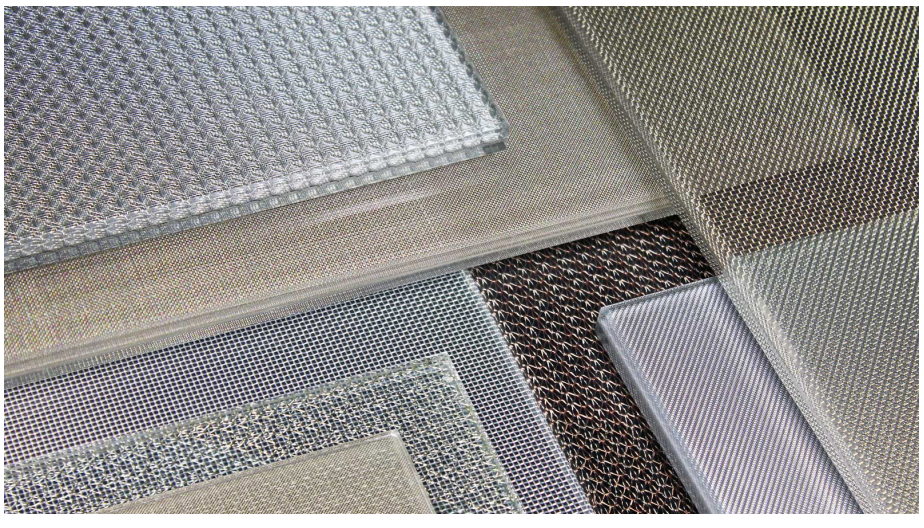




Metalix 2
Bendheim

Featuring delicately woven metallic threads, Metalix 2 weaves a shimmering texture into any interior. The laminated glass panels provide privacy and acoustic benefits as partitions, barriers, or doors. The collection is offered in eight designs and three finishes.

bendheim.com



Gray Cloud Back-Painted Glass
GGI

This frothy shade of gray is applied to the back of ultra-clear glass to create a shiny, completely opaque glass panel. GGI offers the collection in a range of sizes up to 70 by 44 inches.

generalglass.com



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Products in Context

Using glass from the top manufacturers around the world, these projects combine feats of engineering with artful design and careful construction. *By Gabrielle Golenda*

Chicago Transit Authority Green Line Garfield Station

Chicago
Architect: EXP

General contractor: Walsh Construction
Glass artist: Nick Cave
Glazers: Chicago Ornamental Iron, U.S. Architectural Glass & Metal
Glass partition: Skyline Design custom printed ½ laminated glass with an EVA interlayer


COURTESY SKYLINE DESIGN

Sensor City

Liverpool, England
Architect: IBI Group

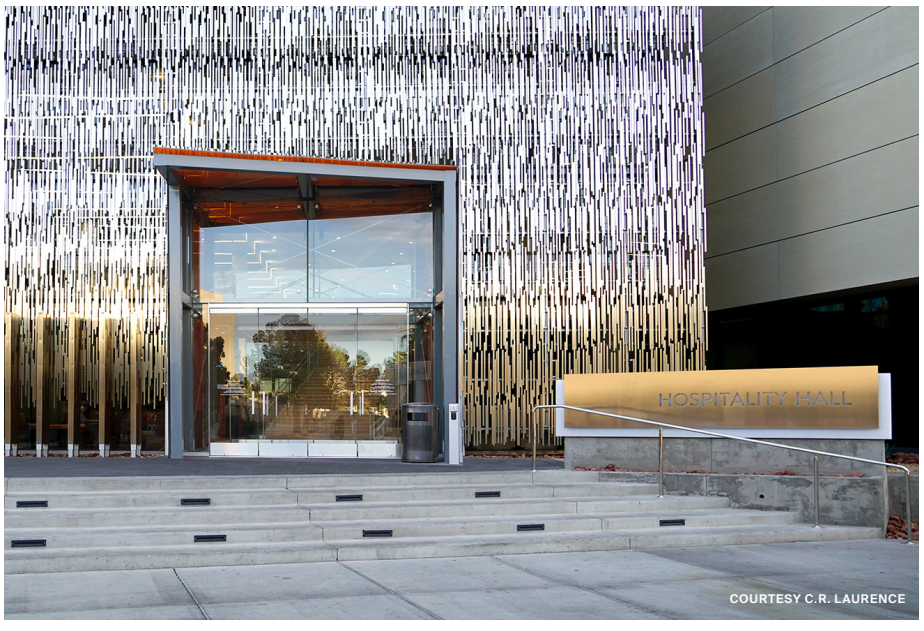
Glass designer: Julian Stocks
Glass fabricator and installer: Novum Structures (United Kingdom)
Glass laminator: Ariño Duglass
Custom laminated glass: Eastman Saflex Structural and Eastman Vanceva color PVB interlayers


JULIAN STOCKS

University of Nevada, Las Vegas Hospitality Hall

Las Vegas
Architect: Carpenter Sellers Del Gatto Architects

Glazing contractor: Giroux Glass
Glass safety products: C.R. Laurence Blumcraft Panic Handles, Heavy Duty Spider Fittings, and SPS Stacking Partition Systems



COURTESY C.R. LAURENCE

Los Angeles LGBT Center, Anita May Rosenstein Campus

Los Angeles
Architects: Leong Leong and Killefer Flammang Architects

General contractor: Swinerton
Installer: Aragon
Curtain wall: Pilkington OptiWhite glass, Viracon VRE-24 and VRE-43 coatings



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Guardian Glass
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Walker Glass Company
walkerglass.com

DECORATIVE GLASS

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3-form.com

AGC Glass North America
agcglass.com

Bendheim
bendheim.com

Carvart
carvart.com

Consolidated Glass
cgcglass.com

Daltile
daltile.com

Eastman
eastman.com

Galaxy Glass & Stone
galaxycustom.com

GGI
generalglass.com

Glass + Mirror Craft
glassandmirrorcraft.com

Glas Italia
glasitalia.com

Goldray Glass
goldrayglass.com

Lunada Bay Tile
lunadabaytile.com

Marazzi
marazziusa.com

Nathan Allan Glass Studios
nathanallan.com

Saflex
saflex.com

SCHOTT North America
us.schott.com

Skyline Design
skydesign.com

Triview Glass
trivew-glass.squarespace
.com

OVERSIZE

Agnora
agnora.com

Cristacurva
cristacurva.com

Glasswerks
glasswerks.com

ITI Glass
itiglass.com

Rochester Insulated Glass
rochesterinsulatedglass.com

Viracon
viracon.com

PERFORMANCE GLASS

Faour Glass Technologies
faourglass.com

GAMCO
gamcocorp.com

Innovative Glass Corporation
innovativeglasscorp.com

Kawneer
kawneer.com

Kinestral Technologies
kinestral.com

Northwestern Industries
nwiglass.com

Oldcastle BuildingEnvelope
obe.com

Pilkington North America
pilkington.com

Pulp Studio
pulpstudio.com

SageGlass
sageglass.com

Sedak
sedak.com

Tecnoglass
tecnoglass.com

SAFETY GLASS

Aluflam
aluflam-usa.com

Assa Abloy
assaabloy.com

C.R. Laurence
crlaurence.com

Dlubak
dlubakglass.com

Global Security Glazing
security-glazing.com

SAFTI FIRST
safti.com

School Guard Glass
schoolguardglass.com

Standard Bent Glass
standardbent.com

Technical Glass Products
(TPG)
fireglass.com

Total Security Solutions
tssbulletproof.com

WINDOWS & WALLS

Accoya
accoya.com

Arcadia Custom
arcadiacustom.com

Crystal Window & Door
Systems
crystalwindows.com

dormakaba
dormakaba.com

Duo-Gard Industries
duo-gard.com

ES Windows
eswindows.com

EXTECH/Exterior
Technologies
extechinc.com

Faour Glass Technologies
faourglass.com

HIRT USA
hirtusa.com

Kalwall
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Reynaers Aluminum
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Reveal Windows & Doors
revealwd.com

Sapa
sapabuildingsystem.com

Schüco
schueco.com

Sierra Pacific Windows
sierrapacificwindows.com

Tubelite
tubeliteinc.com

Vitro Architectural Glass
vitroglazings.com

Vitrosca USA
vitrocsausa.com

Wausau Window and Wall
Systems
wausauwindow.com

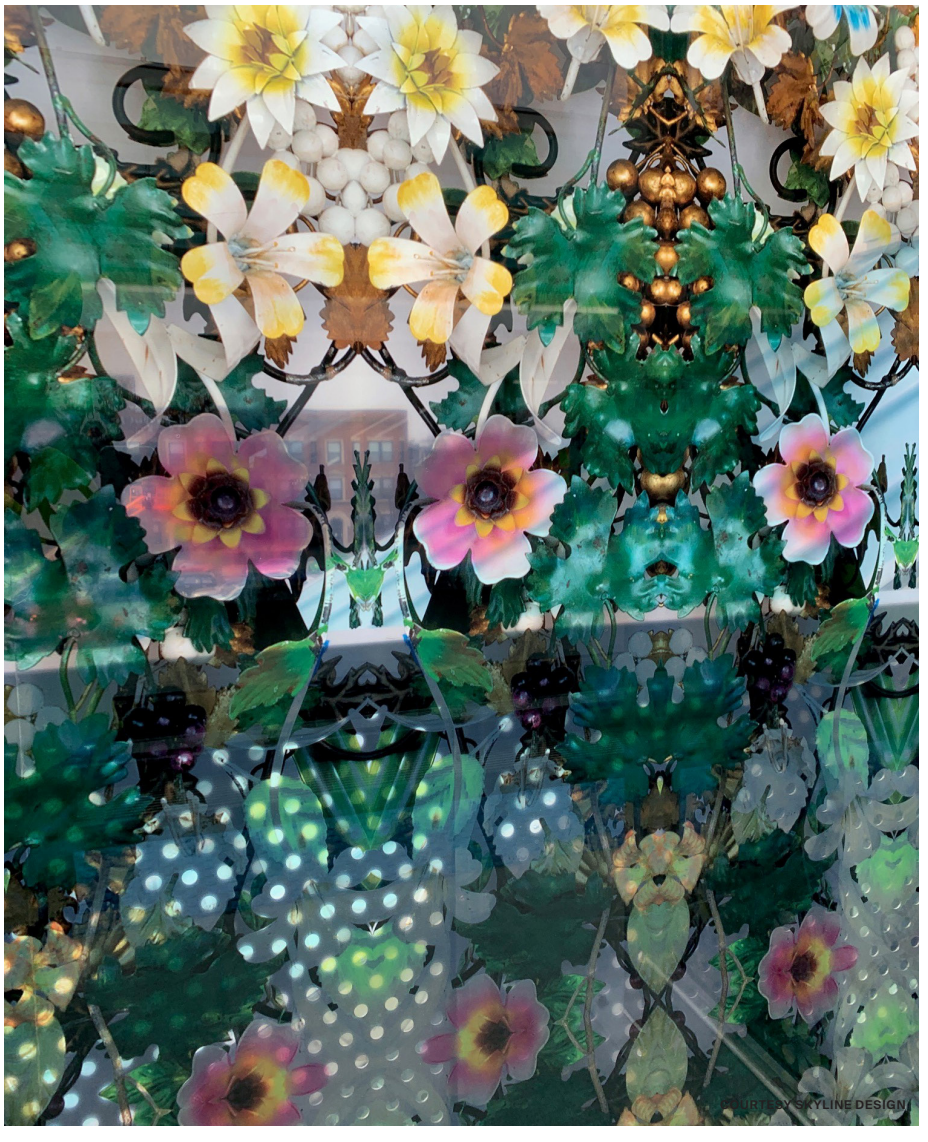
Weather Shield Windows &
Doors
weathershield.com

Western Window Systems
westernwindowsystems.com

YKK AP America
ykkap.com



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59 Highlights

East

Art Omi Summer Season

Art Omi
1405 County Route 22
Ghent, NY

On view through 2019, select pieces through the end of 2020


COURTESY ART OMI

Art Omi's 2019 exhibition season has kicked off at the nonprofit's 120-acre sculpture and architecture park, where visitors can wander among primitive huts, inflatable habitats, towering machinery, high-tech textile pavilions, and more.

Admission to Art Omi's campus is free, and this year, the arts center has assembled a veritable who's who of The *Architect's Newspaper* favorites. Atelier Van Lieshout's 40-foot-tall industrial *Blast Furnace*, last seen at Pioneer Works in Brooklyn, has migrated upstate and now stands in stark contrast to OMG!'s *Primitive Hut*, a wooden structure with trees growing through its lattice.

Other pavilions to watch out for include LevenBetts's *Zoid*, an experiment in geometry and view framing that comprises a shelter and gathering space made from repeating rectangles, and Matthew Geller's *Babble, Pummel, and Pride II*, a small pavilion whose tilted roof is continually hit by water from an adjacent pump, providing guests a respite from calmer weather. All told, over 60 works of sculpture and architecture can be found at the park. **Jonathan Hilburg**

West

Town Enclosure

The Center for the Arts
240 S. Glenwood Street
Jackson, WY

Through October 2019


MATTHEW MILLMAN

Carney Logan Burke Architects has installed an all-in-one performance venue, sculpture, display area, and public gathering space in front of the Center for the Arts in Jackson, Wyoming. Rather than fully enclose this space, as one might expect from its name, the austere Town Enclosure creates a porous circle with a minimal footprint.

Sustainably sourced timber panels arranged 4 feet apart in parallel lines form the "walls" of Town Enclosure, with one side of each panel left raw and the other painted black. The openness of the pavilion is dictated by the viewer's angle—from some directions it appears totally solid, from others an open ring.

Town Enclosure is first and foremost a venue for the center's residents; talks, classes, dance and music performances, and exhibitions of visual art from the center and community groups have all been staged there since it opened in June 2018. **Jonathan Hilburg**

East

Rome and the Teacher, Astra Zarina

'T' Space
137 Round Lake Road
Rhinebeck, NY

Through August 24


BALTHAZAR KORAB

This summer, 'T' Space, a gallery and performance venue established by Steven Holl, will present the work of Holl's former professor and inspirator, the architect and academic Astra Zarina, in the exhibition *Rome and the Teacher*. Guest curated by Alessandro Orsini, the show is inspired by Zarina's 1976 book on Roman roofscapes, *I Tetti di Roma*, and her contributions as a groundbreaking female figure in the profession.

Photographs by the architect Balthazar Korab, who coauthored *I Tetti di Roma*, as well as theoretical writings, models, and historical maps relay the Latvian-born Zarina's professional journey, including her experience as the American Academy in Rome's first female architecture fellow and her lifelong project of restoring the "*città che muore*" (dying town) of Civita di Bagnoregio.

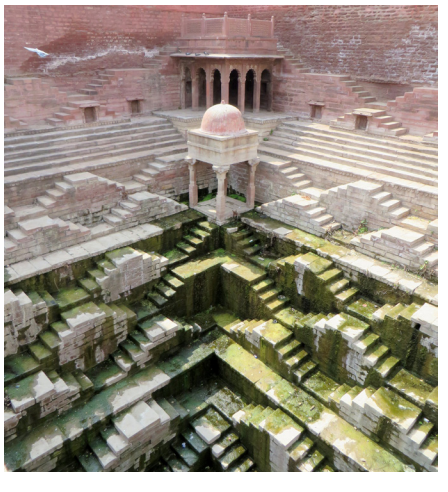
Photographic prints will wrap the gallery space, and a video created by Columbia architecture students will align the exhibition material with newer concepts about design's engagement with public life—a theme central to Zarina's work, teaching, and legacy. **Emily Conklin**

West

India's Subterranean Stepwells: Photographs by Victoria Lautman

The Fowler Museum
University of California, Los Angeles
308 Charles E. Young Drive
Los Angeles

Through October 20




VICTORIA LAUTMAN

In a show at UCLA's Fowler Museum, Chicago-based arts journalist Victoria Lautman explores the hidden beauty of an elaborate building type originating in India: the stepwell. Built throughout the subcontinent's warm, dry regions for the past 1,500 years, stepwells allowed communities to store water from monsoonal rains. These monumental stormwater management systems were built in both Muslim and Hindu architectural styles and served as sites of worship and gathering.

Lautman has visited more than 200 stepwells over the past 30 years in an effort to document their importance and ensure their survival. Organized by Joanna Barrkman, senior curator of Southeast Asian and Pacific arts, the exhibition includes 48 photographs taken by Lautman with a point-and-shoot camera, and is arranged in clusters that focus on specific architectural details. Further images, along with GPS coordinates for each stepwell, are included in Lautman's 2017 book, *The Vanishing Stepwells of India*. **Sydney Franklin**

Virgil Abloh: Figures of Speech

The Museum of Contemporary Art Chicago | Organized by Michael Darling | Through September 22, 2019

Virgil Abloh's midcareer retrospective at the Museum of Contemporary Art Chicago (MCA), *Figures of Speech*, begins with a calculated provocation: tourist or purist? According to the catalogue foreword written by the exhibition's organizer, Michael Darling, the dichotomy signifies the artist's split personality—connoisseur and aspirant—and serves as an invitation for all audiences to participate in a cultural flash point where style destabilizes class (note: The exhibition is dedicated, aptly, to the youth of Chicago). From the outset, the exhibition tone aims for egalitarianism.

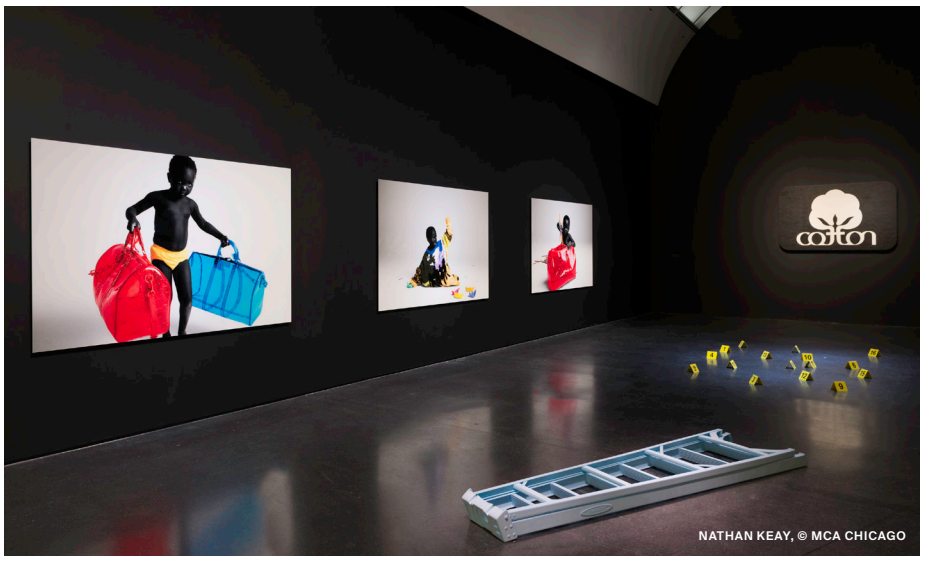
To arrive at this seemingly accessible provocation, however, the observer must first pass through a retinal barrage. The gallery's lobby includes a floor-to-ceiling collage of images. Photos of Le Corbusier are pitted over "ARCHITECTURE" and Abloh over "ARCHITECT," next to images as wide-ranging as portraits of Joy Division singer Ian Curtis and documentation of the September 11, 2001, attacks on the Word Trade Center—jarring juxtapositions recalling OMA/AMO's 2004 book-zine monograph, *Content*. The collage provides a rapid-fire initiation into Abloh's ever-expanding cult of cultural clashes; it comes as no surprise that Samir Bantal, director of AMO, is credited as the exhibition's designer.

Next, the visitor is subsumed into the allure of a pop-up store, titled "Church and State," offering limited edition Off-White™ clothing, gradient-painted furniture, and exhibition catalogues set within a life-size wallpaper photo-essay by the German photographer Juergen Teller. (Don't worry if you can't afford the catalogue—there's a free copy machine on-site.) But to fully experience this exquisite amalgamation of gallery-cum-shop-cum-academy-cum… means also visiting an outbreak of satellite ventures realized c/o Abloh across the city, including the NikeLab Chicago Re-Creation Center, where old sneakers can be donated to be ground into a reusable architectural finish, or a temporary Louis Vuitton "residency" in an orange-painted building within which stands a *David*-size mannequin of the rapper Juice WRLD. (Norman Kelley hosted a workshop at the center.)

So, to reset: The exhibition does not actually start in the Museum of Contemporary Art, but, rather, on the streets of Chicago. Even the museum's Mies van der Rohe Way facade has been rebranded with "CITY HALL" and a black flag that seems to breathe the directive "QUESTION EVERYTHING" in white Helvetica lettering. Fifteen years later, Abloh and Bantal appear to have manifested *Content*'s flatness into something truly three-dimensional.

If you were an architecture student who happened to read *Content* more carefully than you did *S,M,L,XL*, like Abloh clearly did during his time studying architecture at Illinois Institute of Technology, you would have taken note of an introduction from its editor in chief, Rem Koolhaas, that read, "Maybe, architecture doesn't have to be stupid after all. Liberated from the obligation to construct, it can become a way of thinking about anything—a discipline that represents relationships, proportions, connections, effects, the diagram of everything."

The quotation serves as one of the many through lines of the exhibition proper (and foreshadows Koolhaas's abrupt but pointed essay, "After Architecture," in the catalogue) as it unfolds over seven stages and the many more creative disciplines that constitute the 38-year-old's career: "Early Work," "Fashion," "Music," "Intermezzo," "Black Gaze," "Design," and "The End." As these titles suggest, the subjects and material on display are vast, combining media including textile, video, sculpture, painting, graphic design, furniture, and even a building proposal for Chicago's riverfront dating back to Abloh's graduate thesis. Some of the work is known only to early followers—see the Pyrex Vision video. Some of the work is more well-known—see the *False Facade* collaboration with Fabien Montique. Some work is new—see the exquisite floor sculpture *Options*, which arrays yellow number markers warning of a crime scene. And some work is even credited to others—see *Screen Shot*, by fellow artist Arthur Jafa, which blows up a smartphone screen grab of Abloh FaceTiming friend and rapper Theophilus London. The work is often self-referential, privileging access for those who follow Abloh on social media, but it is also paradoxical.







Top: Racial stereotypes in art and fashion are questioned through photography, sculpture, and painting in the "Black Gaze" room. **Middle:** Commercial goods at luxury and accessible price points for sale in the "Church & State" shop at the exhibition entry. **Bottom:** Nike footwear iterations suggest how process is as important to the finished product as craft is.

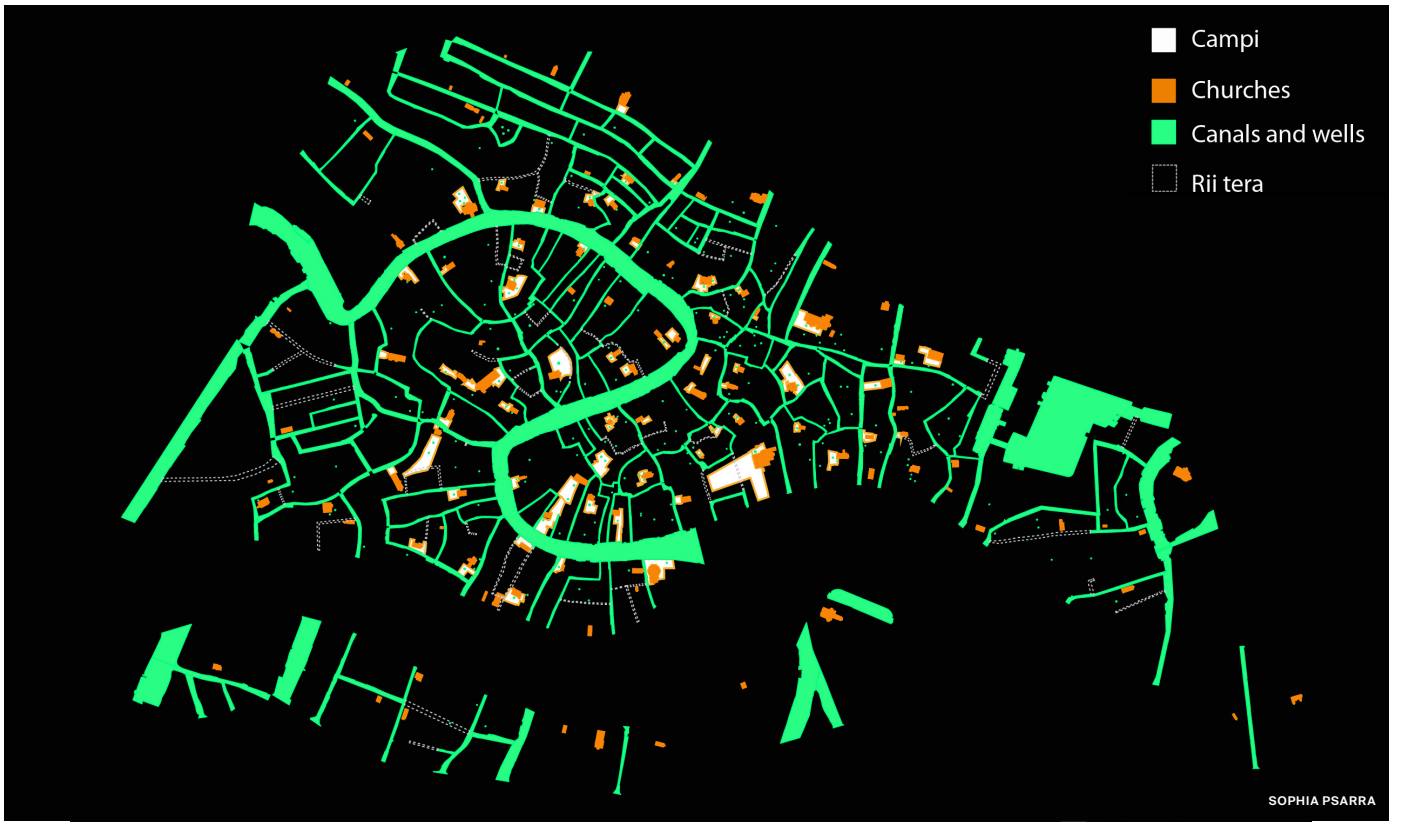
And here is where the exhibition succeeds. While the purist/tourist messaging is as sweeping as the media deployed, the works included are few (relative to Abloh's actual output). The catalogue smacks of prototype, whereas the degree of precision and taste on view in the galleries suggests beauty and refinement—even the sketch Nike sneakers. The pace is also distinctly slow in comparison to how the artist and his audience normally interface.

Most paradoxical is how the tone of the exhibition, despite its democratic aims to level high and low cultures, mistakes cool for irony. The art critic Dave Hickey once argued that "irony and cool are incompatible means to the same end." If irony works by suppressing art's meaning, then cool exists to suppress that meaning's urgency. Imagine a party: Irony antagonizes its guests, while cool simply mingles. Irony is often cited as Abloh's foremost cultural contribution (i.e., "luxury" made popular), but the label is misapplied. Actually, the work registers quite literally within the context of an art museum. The mask that once reveled in concealing angst, or antipathy, toward fashion norms looks to have been removed to reveal a sincere smile. Abloh's penchant for coded language (e.g., the neon sign from a 2016 Off-White runway show reading "YOU'RE OBVIOUSLY IN THE WRONG PLACE") may position his work alongside that of Marcel Duchamp and other Surrealist disruptors, but the physical artifacts and their labored investigations into process, materiality, and value systems appear to have more in common with cooler American artists like early Andy Warhol or Alex Katz. Certainly, these masters, too, are included within the constellation of references that constitute Abloh's dichotomous theory of the purist/tourist, but not nearly as much as the beloved ironists.

So, here is one takeaway: If the work desires to question commodity capitalism, declare (not decry) racial stereotypes, expand social awareness, and decouple building from architectural thinking, all amid the borrowed details of a midcentury modernist, then it does just that. Let transparency guide meaning, as it does in the "Black Gaze" room, where sculpture, photography, and painting weave a tapestry of cultural signifiers designed to be consumed calmly, over time, and folded into a lifestyle as well as an ideology. Like Jafa's affecting film *Love Is the Message, The Message Is Death*, on display at the MCA two stories below *Figures of Speech*, Abloh's work is self-evident. It *is* serious without needing to project its seriousness under the guard of irony. Let Warhol be your lawyer, Mr. Abloh. Or better yet, just be.

Thomas Kelley is a partner in Norman Kelley and an assistant professor at the University of Illinois at Chicago's School of Architecture.

The Venice Variations: Tracing the Architectural Imagination By Sophia Psarra | UCLPress | $29.33





Maps of Venice's urban elements from Psarra's book.

Sophia Psarra's *The Venice Variations* fulfills a dreamy mission of aggrandizing the titular city's history and beauty while recognizing its fragility and potential demise because of climate change and overcrowding from tourists and their marine vehicles.

The beautifully designed book sets up the over-thousand-year-old city as paradigmatic but atypical. Social and physical analyses add to a discussion of its awesome historical architectural development and two contemporary works that the city inspired, Italo Calvino's novel *Invisible Cities* (1972) and Le Corbusier's Venice Hospital (1964). These projects exhibit an intensity of imagination commensurate with Venice's idiosyncratic character. Psarra's book points to the city's republican governance, worldwide trading patterns, and physiognomy, especially its islands, as evidence of its fundamentally deindustrial nature, positioning its regeneration as an example worth following. Of course, Venice's architectural importance has always been obvious: Books on Vitruvius were printed there, and Palladio's thinking and buildings take central stage in its heritage of interwoven islands and structures. The irregularity of the city's urban fabric introduces variability within an organic whole.

Psarra deals very carefully with the history of Piazza San Marco and its central position in civic and religious interpretations of the city. Its architects, Sansovino, Longhena, and Palladio, orchestrated their contributions to this special communal space to create specific views for the public to experience. The piazza accommodated many Venetian citizens and their commercial interests, as well as cultural rites—the author titles this chapter "Statecraft," but the square welcomed stagecraft, too. Religious processions led by clergy and the Doge marked many occasions. Illustrations of the piazza and its surroundings by the author abound; these educational aids are present to a fault.

Italo Calvino makes his *Invisible Cities* mysteriously visible in print, a feat of vivid invention. This is a novel where plot is overtaken by expansive, thought-provoking fabrications. The merchant Marco Polo describes 55 cities as fantastical constructions to Kublai Khan, who rejoices in his empire. Our two protagonists, Khan and Polo, differ greatly: The former seeks order in his possessions, while Polo "seeks not-yet-seen adventures." *Invisible Cities* attracted postmodern architects with its playfulness. The book juxtaposes images of lightness and coherence with images of entropy—disorder and ruin are the fascinations of our two protagonists. Although Polo refuses to discuss Venice, he provokes thoughts of it intermittently, and the city haunts the book. There is a play of numbers showing Calvino's attachment to the Oulipo group of mathematicians, and he includes Polo's descriptions and his and Khan's dialogues and the number of combinatorial rules. Psarra shows some brilliance in this interpretation of mathematical patterns that few, including this author, fully comprehend. Though not a expert in mathematics, Psarra certainly seems to manage these complex concepts in the book. While architecture demands knowledge of mathematics, I wonder if there are architects who might appreciate the math of *Invisible Cities* as conveyed in *The Venice Variations*.

As the last project Psarra visits, Le Corbusier's Venice Hospital leaves a heavy imprint on the mind. Unlike the architect's typically isolated buildings, Venice Hospital is meant to fit in with existing neighboring structures. Le Corbusier's imagery is pertinent for understanding that of contemporary Venice. If Palladio's San Giorgio Maggiore lies at the front of the city, the hospital would have marked its back door. The completed project would have been as radical as the first modern designs of the avant-garde—especially in its entrance from beneath, which recalls the Villa Savoye and the later National Museum of Western Art in Tokyo. Psarra also explores the hospital's affinity with mat buildings as described by Alison Smithson. In fact, Venice Hospital's place in the realm of architectural history lies in the province of Team Ten, with a neat precedent in Shadrach Woods's Berlin Free University. The project engaged Le Corbusier's attention for over nine years; after the master's sudden death, Guillermo Jullian de la Fuente continued the work. Psarra tells the tale well: how the horizontal layout of the design sets up pivoting squares and nurse stations on the first floor and how the aggregation of cells flows horizontally to merge with the city. As in other signature buildings, Le Corbusier develops a system of squares and golden-section rectangles, which gives geometric logic to the spaces.

Suzanne Frank received a PhD in 1970 from Columbia University and has taught and written about issues in architecture from the 19th to the 21st centuries.

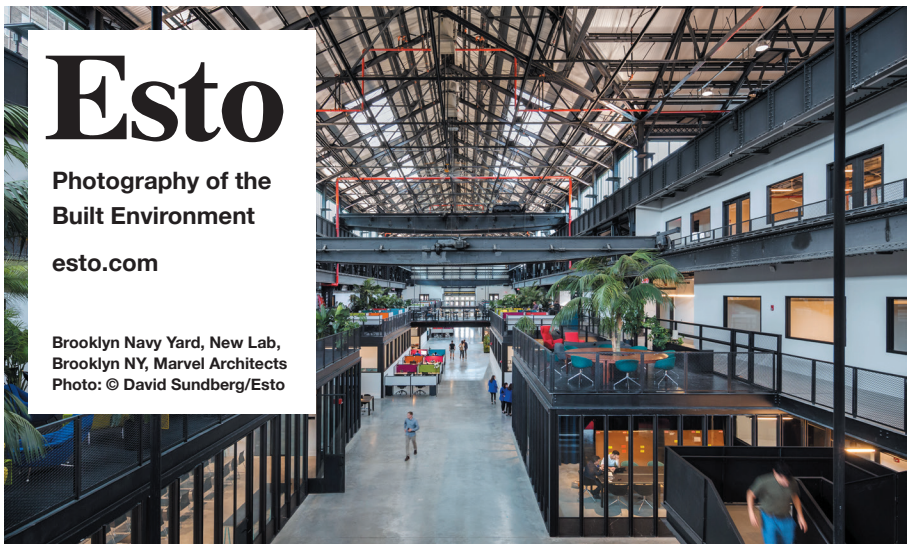
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Posthumous Collaborations

Adam Yarinsky reflects on ARO's work in spaces originally shaped by artists Donald Judd and Mark Rothko.



Above and opposite: Interior of the renovated Judd Foundation.

Actual space is intrinsically more powerful and specific than paint on a flat surface.
—Donald Judd

I have made a place.
—Mark Rothko

Architects often say that the best clients are those who are most collaborative, but what if your client died decades ago? I think of our restorations of 101 Spring Street, Donald Judd's home in New York City, and the Rothko Chapel in Houston as case studies in posthumous collaboration. At these remarkable sites, Judd and Rothko expanded the physical boundaries of sculpture and painting by creating carefully calibrated spatial relationships between art and its context. When we experience these places, we gain greater awareness of ourselves, of our connection to other people and the world around us. Yet the passage of time diminished their qualities, as the conditions needed to appreciate them changed. Sensitively engaging these sites required untangling a web of aesthetic, philosophical, administrative, technical, and constructional questions. Through our research-based methodology, we gathered and analyzed information (including archival documentation), conducted interviews, analyzed historical and existing conditions, and synthesized the work of specialists. This established the basis of a rigorous, iterative design process that aimed to yield a holistic strategy. Ultimately, our challenge as architects was to reconcile the artists' original intentions with the ongoing missions of the cultural organizations that perpetuate their legacies.

Preservation and access

The space surrounding my work is crucial to it: As much thought has gone into the installation as into a piece itself.
—Donald Judd

We first encountered this unusual design problem when we were responsible for the restoration of 101 Spring Street, the five-story 1870 mercantile building that Judd occupied from 1968 to 1994. Here, he made what came to be known as his permanently installed spaces: site-specific installations of his art and that of his peers. He modified the cast-iron building and added new elements to create an unprecedented interaction between art and daily life. In the years following his untimely death, the deterioration of the building compromised Judd's work and the Judd Foundation's mission—on top of the fact that the building did not have a certificate of occupancy. Working closely over eight years with representatives of the foundation, we preserved the authentic experience Judd intended. Paradoxically, this required extensive modern technical infrastructure, such as fire suppression and life-safety systems, without which public access would not be possible. Completed in 2013, the painstaking effort touched nearly every part of the building, but the project's success is measured by the extent to which our presence disappears in service of Judd's vision.

Contemplation and action

We have here both a chapel and a monument; a place for worship and a memorial to a great leader. The association of these two remarkable sites should tell us over and over again that spiritual life and active life should remain united.
—Dominique de Menil

A current project, presently in construction, is the restoration of the Rothko Chapel and new architecture that supports the chapel's expanded public programming. The Rothko Chapel is both a place and a program, comprising the union of patrons John and Dominique de Menil's ecumenism and egalitarianism with Mark Rothko's aspiration to create deep emotional connections through the immersive experience of his art. The chapel building, completed in 1971, is a locus for spiritual enlightenment through meditation in a space Rothko defined through the integration of 14 monumental painted panels with their architectural context. The adjacent reflecting pool and Barnett Newman's sculpture *Broken Obelisk*, dedicated to Martin Luther King Jr., symbolize the chapel's mission to act as a platform for social justice through its programming, which promotes dialogue between people. The dialectic between contemplation and action, which is integral to the chapel's institutional and architectural identity, is the basis of our design strategy. In this sense, we engage the de Menils as collaborators, too.

Restoring the sense of awe

A picture lives by companionship, expanding and quickening in the eyes of the sensitive observer.
—Mark Rothko

Our goal for the chapel restoration is to reinstate a sense of awe in each guest along with a recognition of self, which is the basis of the chapel's social mission. This self-recognition is constituted from the experience of Rothko's interior, an octagonal space formed by his paintings, which are portals into voids of fluctuating opacity, color, and reflectivity illuminated by a central skylight. Although he determined all the key attributes of the chapel (prevailing over the wishes of Philip Johnson, who designed the building with Howard Barnstone and Eugene Aubry), Rothko never visited Houston and died before it was completed. Choosing daylight as the primary source of illumination, he did not anticipate the harsh Texas sun, which immediately began to damage



JAMES EWING

the paintings and weaken the qualities that he had so rigorously studied in his New York studio. During the decades following the opening of the chapel, three attempts to block and filter daylight with baffles did not successfully address the need to control glare and brightness. The most significant element of the restoration is an innovative lighting strategy developed by George Sexton, which opens the interior space as it was originally conceived. This includes a new skylight with an array of angled louvers, each precisely oriented to distribute daylight more evenly to Rothko's panels. When daylight is lower than needed to see the paintings, such as on a very cloudy day or at dusk, eight digital projectors concealed in a ring around the skylight provide subtle additional illumination. Other changes, including a redesigned entry sequence, will greatly improve the quality of the experience.

Mediating between the chapel and the neighborhood

...a reconciliation between the ordinary and the extraordinary in a dialectical relationship...
—Stephen Fox

The new architecture for the chapel is grounded in both the singular power of its building and the unique character of the surrounding early-20th-century residential neighborhood, but does not overwhelm either of these contexts. This maintains the de Menils' vision—the essence of the chapel's identity as a program—to situate the sacred within daily life. A new landscape precinct, designed in collaboration with Nelson Byrd Woltz, is created by the removal of adjacent houses occupied by the chapel and the addition of new planting, paths, and plaza pavement. This affirms the chapel's presence as a freestanding element within the larger open space shared with adjacent Menil Park on a block framed by a necklace of bungalows. Across Sul Ross Street, a new north campus comprises a welcome house, program center, and an administration and archive building that together define a public courtyard, which opens to the street. The scale and massing of these elements echo those of the adjacent residences, further bridging the neighborhood and the chapel. With glass walls shaded by a generous wood trellis, the porchlike welcome house is a resting place along the journey to and from the chapel. The program center, which includes a two-hundred-person meeting room, is pushed to the back of the courtyard to establish a buffer against larger development to the north. The administration and archive building aligns with the width and height of the chapel, which also sets the height of the program center.

The architectural expression of the north campus extends the site strategy. The simple building forms echo the chapel's mass and are clad in gray wood siding that relates to the existing bungalows, which are all painted gray. This vertical and horizontal board-and-batten detailing provides a play of shadows, which integrates the architecture with the dappled light that passes through the tree canopy. A large, shaded glass wall visually connects the program center's meeting room to the courtyard and the chapel across the street. The meeting room, whose outward-looking public orientation contrasts with the chapel's inward focus, is defined by simply spanning laminated wood beams, gray plaster walls (which match the chapel), and a wood floor. It is equipped with concealed technical infrastructure to support a variety of events, including lectures, symposia, banquets, and workshops. The north wall of the meeting room is illuminated by a continuous skylight, which brightens the interior and enables views into the space from outside.

Unity

...one person is a unity, and somehow, after the long complex process, a work of art is a similar unity.
—Donald Judd

I have created a new kind of unity, a new method of achieving unity.
—Mark Rothko

The restoration of 101 Spring Street and the restoration and expansion of the Rothko Chapel are deeply informed by our engagement with both posthumous and living collaborators (including the artists' children). Sometimes our work is invisible; often there are prominent new elements. Ultimately, everything is shaped by our judgment. We seek a reciprocity between existing and new architecture, a complex layering that balances deference and distinction. These projects inform our other current work, including the design of a new visitor center for Olana, the painter Fredric Church's property in upstate New York, and the Dia Art Foundation's spaces in Manhattan's Chelsea neighborhood. Judd and Rothko used the word "unity" in describing their aspirations for art that encompasses the fullness of humanity's relationship to the world. Dominique de Menil expressed her conviction that "spiritual life and active life should remain united." Through these projects, we learned that inquiry and invention, grounded in empathy and humility, unite architecture with its past, present, and future cultural contexts.

Adam Yarinsky is a principal at ARO.

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